

NEW JERSEY



TECHNOLOGY STUDENT ASSOCIATION

***LEARNING TO LEAD  
IN A TECHNICAL WORLD***

***2021 NJ TSA  
HIGH SCHOOL  
SUPPLEMENT***

Cover Art By:

Jessie Fan

Morris Hills High School

1st Place Promotional Design

2020 NJ TSA High School Conference

## 2020-2021 New Jersey TSA Executive Committee

### **State Officers**

Khushi Sabuwala	President	High Technology High School
Olivia Lieberman	Historian	Freehold Township High School
Madison Dawson	Secretary	Howell High School
Juliana Minniti	Treasurer	Clearview Regional High School
Michael Brown	Reporter	Howell High School
Sahil Maher	Sergeant-at-Arms	Freehold Township High School
Natalie Radu	Historian	High Technology High School
Ruchir Bodicherla	Parliamentarian	Marine Academy of Science and Technology

### **State Officer Advisors**

Ms. Melissa Parr	Clearview Regional High School
Mr. Thomas Jennings	Freehold Township High School
Ms. Megan Zummo	Freehold Township High School
Ms. Sherry Roses	Howell High School
Ms. Jennifer Garrity	High Technology High School
Ms. Samantha Moorzitz	Marine Academy of Science & Technology
Ms. Melissa Parr	Clearview Regional High School

### **State Regional Coordinator**

Ms. Sherry Roses	Howell High School
------------------	--------------------

### **State Advisor and Corporate Member**

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

### **Competitive Event Coordinator**

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

### **Business Administrator**

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

**The 2021 NJ Supplement**  
to the  
***TSA High School VIRTUAL Competitive Events Guide***  
***(for the 2021 National TSA Conference)***

**Foreword**

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 virtually, in Spring 2021. Competitive event entries will be submitted electronically, by March 29, 2021, and a virtual Awards Ceremony will take place on an April date TBA. Participants wishing to take part in these online competitions may do so FREE of charge; there is no registration fee to participate. All students must be registered in the NJ TSA State Conference Registration System to participate. Students will need the ID# they receive upon conference registration, to label electronic entries.

**How this booklet works**

The *NJ Supplement* works in conjunction with the **National TSA High School VIRTUAL 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 through the NJ TSA Virtual State Conference in alphabetical order as well as the maximum number of participants or teams permitted to compete from each chapter. Each New Jersey competitive event in this booklet lists only the modifications from the National guidelines. Substitute the NJ modification in this booklet for the number or letter on the National guidelines to ensure that your chapter meets the guidelines for the NJ Competitive Events.

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

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

Any questions may be directed to Ms. Alison Goeke, NJ TSA State Advisor at [goeke2@tcnj.edu](mailto:goeke2@tcnj.edu), Henry Harms, NJ TSA Competitive Event Coordinator, at [harms@tcnj.edu](mailto:harms@tcnj.edu), or Rebecca Turner, NJ TSA Business Manager, at [turner25@tcnj.edu](mailto: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	ELIGIBILITY
Entries for the following events are due February 25, 2021:	
Extemporaneous Speech	2 individuals per chapter.
Entries for the following events are due March 2, 2021:	
Debating Technological Issues	2 teams of 2 members per chapter.
Essays on Technology	2 individuals per chapter.
On Demand Video	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
Prepared Presentation	2 individuals per chapter.
Entries for the following events are due March 29, 2021:	
Animatronics	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
Architectural Design	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
Biomimicry	3 teams of 3-6 members per chapter. Teams of 1 individual are permitted.
Biotechnology Design	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
Board Game Design	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
Children's Stories	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
Coding	2 teams of 2 members per chapters. Teams of 1 individual are permitted.
Computer-Aided Design (CAD), Architecture	2 individuals per chapter.
Computer-Aided Design (CAD), Engineering	2 individuals per chapter.
Data Science & Analytics	2 teams of 2 members per chapter. Teams of 1 individual are permitted.
Digital Video Production	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
Engineering Design	2 teams of 3-6 members per chapter. Teams of 1 individual are permitted.
Fashion Design and Technology	2 teams of 2-4 members per chapter. Teams of 1 individual are permitted.
Future Technology and Engineering Teacher	3 individuals per chapter.
Geospatial Technology	2 teams of up to 3 members per chapter. Teams of 1 individual are permitted.
Information Technology Fundamentals + Preparation Exam	3 individuals per chapter.
Music Production	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
Optical Engineering	3 teams of 3-6 members per chapter. Teams of 1 individual are permitted.
Photographic Technology	2 individuals per chapter.
Promotional Design	2 individuals per chapter.
Scientific and Technical Visualization (SciVis)	3 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
Software Development	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
Transportation Modeling	2 individuals per chapter.
Video Game Design	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
Webmaster	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.

## II. PROJECT SUBMISSION

All entries must be emailed to [tsachall@tcnj.edu](mailto:tsachall@tcnj.edu) by 11:59pm on March 29, 2021. Please note the events with an earlier deadline, listed on Page 4, which are due on February 28 and March 2. For these events, guidelines require a short window of time for students to solve problems. Please see the specific submission requirements listed under each competition in this document.

When emailing entries, the individual or student ID#, and name of the event, must be included in the email subject line. Any attached files should also include ID# and event name.

Upon registering students in the State Conference Registration System, they are automatically assigned a State Conference ID# (this is different from a National TSA ID#). The State Conference ID# needs to be on all parts of student projects (i.e. portfolios, models, displays, copyright/release forms, etc.). Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).

## III. PARTICIPATION IN COMPETITIVE EVENTS

- A. Participation in the 2021 NJ TSA High School Virtual State Conference is FREE.
- B. TSA members may register and participate in no more than **FOUR total events**.
- C. Students must be registered in the State Conference Registration System in order to enter and become finalists/winners in a competition.
- D. **No school or individual names labeled on electronic projects**, unless otherwise noted. **Only ID#'s are to be used.** Upon registering students in the State Conference Registration System, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolios, models, displays, copyright/release forms, etc.). Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).
- E. NJ TSA is not responsible for compatibility issues with electronic files. Judges will not be permitted to install programs to view files.
- F. Proper procedures for citing material taken from other sources must be followed as outlined in specific competitive event guidelines. Copyright procedures and forms must be completed and submitted with entries when necessary.
- G. The maximum size of a team is 6 members, unless otherwise designated in a competition's eligibility guideline.
- H. In addition to the information found in the NJ Supplement, participants are responsible for knowing any updates, changes or clarifications that are made to competitive events prior to participation. This information is posted on both the National TSA and NJ TSA websites. It is crucial that students check the Competition Updates page of BOTH the NJ and National TSA websites. DIFFERENT information is posted on each site.

#### IV. COMPETITIVE EVENT ATTIRE

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

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

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

#### VI. AWARDS

##### Virtual Awards Ceremony

A virtual Awards Ceremony will take place in April 2021 (date TBA) to celebrate the achievements of NJ TSA members and conference participants. 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> place winners of competitions will be recognized.

##### TSA Technology Honor Society

The TSA Technology Honor Society recognizes TSA members who excel in academics, leadership, and service to their school and community. The TSA Technology Honor Society is (1) an opportunity for student members to be recognized for their efforts and (2) designed to recognize TSA members who exemplify the high ideals of academics. Please email completed forms to Alison Goeke, [goeke2@tcnj.edu](mailto:goeke2@tcnj.edu) by March 29, 2021. Go to <https://tsaweb.org/resources/student-members/student-achievement-awards> to access forms.

##### NJ TSA Future Technology Teacher Scholarship

The NJ TSA Future Technology Teacher Scholarship supports the mission of TSA by encouraging members to pursue careers as technology education teachers. A qualifying student will receive a \$500 scholarship to use toward continuing their education. The recipient will be announced each spring. Please email completed forms to Alison Goeke, [goeke2@tcnj.edu](mailto:goeke2@tcnj.edu) by March 29, 2021. [Click here](#) for application.

## VII. IMPORTANT DATES AND DEADLINES

### January 11, 2021

NJ State Conference Registration OPENS

### January 11, 2021

Design Problems for the following events will be posted on [NJ TSA website](#):

Coding

Computer-Aided Design (CAD), Architecture

Computer-Aided Design (CAD), Engineering

Optical Engineering

Note- other design problems/themes for 2021 can be found within this document, and on the [National TSA website](#)

### February 25, 2021- March 2, 2021

Design Problems/themes for the following events are posted at 5pm on February 25, 2021 on the [NJ TSA website](#). Completed entries must be emailed to [tsachall@tcnj.edu](mailto:tsachall@tcnj.edu) by 5pm on March 2, 2021:

Debating Technological Issues

Essays on Technology

Extemporaneous Speech – DUE SAME DAY- February 25, 2021

On Demand Video

Prepared Presentation

### March 29, 2021

The following competitive event entries are due, and must be emailed to [tsachall@tcnj.edu](mailto:tsachall@tcnj.edu) by 11:59 pm:

Animatronics

Architectural Design

Biomimicry

Biotechnology Design

Board Game Design

Children's Stories

Coding

Computer-Aided Design (CAD), Architecture

Computer-Aided Design (CAD), Engineering

Data Science & Analytics

Digital Video Production

Engineering Design

Fashion Design and Technology

Future Technology and Engineering Teacher

Geospatial Technology

Information Technology Fundamentals + Preparation Exam

Music Production

Optical Engineering

Photographic Technology

Promotional Design

Scientific Visualization (SciVis)

Software Development

Transportation Modeling

Video Game Design

Webmaster

### March 29, 2021

Technology Honor Society, NJ Scholarship, and State Officer Nominations due.

### March 30, 2021

NJ State Conference Registration CLOSES at 5pm.

### April 2021 (date TBA)

NJ TSA Virtual Awards Ceremony

### May 15, 2021

Registration and entries are due for the Virtual National TSA Conference.

### June 23-26, 2021

In-Person National TSA Conference

Rosen Shingle Creek Resort

Orlando, Florida

Theme: Together Towards Tomorrow

## Level II – High School Events

### Animatronics

2021 Design Challenge: Create an Animatronic exhibit for a science center

<b>OVERVIEW:</b>	No change.  <b>The video showing the animatronic elements must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b>
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round</u> B.5.a-B.5.c. The hyperlink of the video, and PDF of the copyright documentation, must be emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Animatronics” in email subject line, and PDF file name. B.7. No semifinalists. Winners will be announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No presentation/interview. Top three winners are announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#’s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b> <b><i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students’ individual ID#s (e.g. if a student ID# is 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.).</i></b></p>
<b>EVALUATION:</b>	Delete B. No presentation/interview.  Evaluation is based on 90 points: <ul style="list-style-type: none"> <li>• Model Function (60)</li> <li>• Model Appearance (30)</li> </ul>



## Architectural Design

The focus of the 2020-2021 Architectural Design problem is open-ended. Students must select a non-residential building in their community, and create a “remodeled” facility.

Please view the Design Problem here: <https://tsaweb.org/competitions-programs/tsa/themes-problems>

<b>OVERVIEW:</b>	No change  <b>The documentation portfolio, and video presentation, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b>
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 teams of up to 6 members per chapter. Teams of 1 member are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u> C.1.-C.2. Participants email the PDF of the documentation portfolio, and the URL of their video presentation, to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Architectural Design” in email subject line, and file names. D. Email verification will be made upon request. F. No semifinalists. Winners will be announced at Awards Ceremony.</p> <p><u>Semifinal Round:</u> A.-C. No semifinalists. All teams record a video presentation, up to five (5) minutes in length, to demonstrate features of the model. Teams may designate as many members as they choose to be in the video. No interview, only a video presentation. Participants may refer to the documentation portfolio and model during the presentation. Please see above submission directions for video presentation. Top three winners are announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#’s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b> <b><i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students’ individual ID#s (e.g. if a student ID# is 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.).</i></b></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u> No change.</p> <p><u>Semifinal Round:</u> No interview. Video presentation only. No semifinalists. All teams record video presentation.</p>

	<p>Evaluation is based on 270 points:</p>
--	---

- Documentation Portfolio (90)
- Design Challenge (50)
- Model (70)
- Presentation Video (60)

## Biomimicry

### 2021 Topic: Natural Resource Collection

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 Virtual State Conference.

<b>OVERVIEW:</b>	<p>An increasing number of engineers and designers are looking to nature for inspiration in developing new products, systems and solutions to problems.</p> <p>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!</p> <p>Biomimicry is a new science that studies nature’s best ideas, then imitates these designs to solve human problems.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><b>The topic for 2021 is Natural Resource Collection.</b></p> <p><b>The documentation portfolio and digital display must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>PURPOSE:</b>	Participants apply the principles and practices of industrial design in developing and proposing a product inspired by nature.
<b>ELIGIBILITY:</b>	3 teams of 3-6 members per chapter. Teams of 1 individual are permitted.
<b>SUBMISSION INFORMATION:</b>	Documentation portfolio must be submitted as a multipage PDF document. Digital display may be submitted as a URL or PDF attachment. Documentation portfolio and digital display must be emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by 11:59pm on March 29, 2021. Include ID# and “Biomimicry” in email subject line, and file names.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.

<b>PREPARATION:</b>	<ul style="list-style-type: none"> <li>A. Participants research and identify a problem within the designated topic.</li> <li>B. Using that problem, participants will find at least three (3) alternative solutions to that problem, inspired by nature.</li> <li>C. Participants select one of these solutions and explain why it is the best choice.</li> <li>D. Participants create a documentation portfolio compiling all information, and a digital display of the final solution.</li> </ul>
<b>REGULATIONS AND REQUIREMENTS:</b>	<ul style="list-style-type: none"> <li>A. 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.</li> <li>B. 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.</li> <li>C. The entry will consist of a documentation portfolio and a digital display.</li> <li>D. The digital display will include: <ul style="list-style-type: none"> <li>1. Name of the final solution, conference city, state and year.</li> <li>2. Rationale for the final solution.</li> <li>3. Detailed explanation of the final solution.</li> <li>4. A three (3)-dimensional technical or CAD drawing and/or rendering of the final solution.</li> </ul> </li> <li>E. The documentation portfolio must include the following pages in a single, multi-page PDF document in this order: <ul style="list-style-type: none"> <li>1. Title page with the event title, the conference city and state, and the year; one (1) page.</li> <li>2. Table of contents; pages as needed.</li> <li>3. Mentor verification that includes the name, address, and occupation of the mentor; one (1) page.</li> <li>4. A design brief (format that follows) that describes the design and its constraints; one (1) or more pages.</li> </ul> </li> </ul> <p><b><u>DESIGN BRIEF</u></b></p> <p><b>Context:</b> States the nature of the engineering design</p> <p><b>Task:</b> Clearly states what the team will be involved in</p> <p><b>Restrictions:</b> Identifies any restrictions</p> <p><b>Investigations:</b> Identifies the research involved</p>

	<p><b>Development:</b> States essential elements involved in planning</p> <p><b>Production:</b> Identifies the expected result</p> <p><b>Evaluation:</b> Identifies the expected assessment procedure and criteria</p> <ol style="list-style-type: none"> <li>5. A description of the problem solving steps; pages as needed.</li> <li>6. Plan of Work log that indicates preparation for the event, as noted by date, task, time involved, team member responsible and comments (see Plan of Work log in the National TSA Competitive Events Guide); one (1) page.</li> <li>7. Evidence of research conducted by the design team; pages as needed.</li> <li>8. Documentation of brainstorming; pages as needed.</li> <li>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.</li> <li>10. A detailed description of the final solution; pages as needed.</li> <li>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.</li> <li>12. Math and science concepts and applications involved in the final design solution; one (1) page.</li> <li>13. A list of references and resources; MLA style must be used in citing all references and resources; pages as needed.</li> <li>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.</li> </ol> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></p> <p><i>Team ID#'s may be used for team events. A Team ID# is the first four numbers of students' individual ID#'s (e.g. if a student ID# is 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.).</i></p>
<b>EVALUATION:</b>	<p>Please see the rating form on the following pages.</p> <p>Evaluation is based on 100 points:</p> <ul style="list-style-type: none"> <li>• Documentation Portfolio (60 points)</li> <li>• Digital Display (40 points)</li> </ul>

<b>STEM INTEGRATION:</b>	This event aligns with the STEM educational standards noted below.  Science, Technology, Engineering, Mathematics
<b>PRIMARY LEADERSHIP SKILLS:</b>	Leadership skills promoted in this event: <ul style="list-style-type: none"> <li>• COMMUNICATION — Students choose an existing design problem and develop and explain their solution. Suggested leadership lessons: <i>Personality Types</i> and <i>Promote It</i></li> <li>• CRITICAL THINKING — Students analyze and evaluate a problem in order to develop an acceptable solution. Suggested leadership lessons: <i>And The Answer Is</i> and <i>Critical Thinking Tips</i></li> <li>• PROBLEM SOLVING — Students devise a plan that will yield an acceptable solution. Suggested leadership lessons: <i>Debate It</i> and <i>Effective Brainstorming</i></li> </ul> <i>Additional leadership skills promoted in this event: creative thinking, decision making, ethics, evaluation, organization, teamwork</i>
<b>TSA AND CAREERS:</b>	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 <i>The 16 Career Clusters</i> chart and the <i>TSA Competitions and The 16 Career Clusters</i> grid as resources for information about careers.
<b>CAREERS RELATED TO THIS EVENT:</b>	All fields of engineering and design (and related areas)

Participant ID/Team ID# \_\_\_\_\_

**BIOMIMICRY****2021 OFFICIAL RATING FORM****HIGH SCHOOL**Record Scores in the  
Column Spaces Below**Documentation Portfolio (50 points)**

CRITERIA	Minimal performance 1-4 points	Adequate performance 5-8 points	Exemplary performance 9-10 points
Evaluators: Using minimal (1-4 points), adequate (5-8 points) or exemplary (9-10 points) performance levels as a guideline, record the scores earned for the event criteria in the 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.)			
<b>Portfolio components</b> 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.
<b>Definition and explanation of problem and solution</b> (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.
<b>Research base</b> (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.
<b>Supporting graphics and materials</b> (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.
<b>Quality and effectiveness</b> (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)****Digital Display (40 points)**

CRITERIA	Minimal performance 1-4 points	Adequate performance 5-8 points	Exemplary performance 9-10 points
<b>Communication of problem</b> (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.
<b>Communication of solution</b> (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.
<b>Creativity</b> (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.
<b>Aesthetics and Artanship</b> (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 initiated 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

2021 Theme: The use of biotechnology in medicine

<b>OVERVIEW:</b>	<p>No semifinalists. No semifinalist presentation/interview.</p> <p><b>The interactive digital display, and documentation portfolio, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	C. No oral presentation/interview. Participants prepare documentation portfolio, and interactive digital display. Display may include speaking/voice recording.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u>            C.1.-C.2. The PDF of the documentation portfolio, and hyperlink to the digital display, must be emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and "Biotechnology Design" in email subject line, and file names.            D. Email verification will be made upon request.            E.-F. Judges evaluate all documentation portfolios and digital displays. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u>            No semifinalists. No presentation/interview. Top three winners announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b>  <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 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.).</i></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u>            No change.</p> <p><u>Delete Semifinal Round.</u>            No semifinalists. No presentation/interview. Model (optional) may be featured in digital display.</p> <p>Evaluation is based on 130 points:</p> <ul style="list-style-type: none"> <li>• Documentation Portfolio (50)</li> <li>• Digital Display (80)</li> </ul>

## Board Game Design

<b>OVERVIEW:</b>	<p>No semifinalists. No interview. All teams create game, documentation portfolio, and video demonstration of game features.</p> <p><b>The documentation portfolio, and video, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u>            G.1.-G.2. The PDF of the documentation portfolio, and hyperlink to the video demonstration, must be emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Board Game Design” in email subject line, and file names.            H. Email verification will be made upon request.            I.-J. Judges evaluate documentation portfolios, Packaging and Board Game criteria, and videos, for every team. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Semifinal Round:</u>            A.-C. No semifinalists. No interview. All teams submit a video demonstration of up to five (5) minutes in length to demonstrate/discuss the features of the game. Teams may designate as many representatives as they choose to demonstrate the functionality of the game in the video, including the packaging and unpackaging.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i>  <i>Team ID#'s may be used for team events. A Team ID# is the first four numbers of students' individual ID#'s (e.g. if a student ID# is 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.).</i></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u>            No change.</p> <p><u>Semifinal Round:</u>            No semifinalists. No live presentation/interview. All teams submit video demonstration/presentation up to five (5) minutes in length.</p> <p>Evaluation is based on 160 points:</p> <ul style="list-style-type: none"> <li>• Documentation Portfolio (70)</li> <li>• Packaging (30)</li> <li>• Board Game (30)</li> <li>• Demonstration Video (30)</li> </ul>

## Children's Stories

2021 Theme: Create a pop-up book in which the pop-ups illustrate the story. The story should include the use of non-renewable energy resources.

<b>OVERVIEW:</b>	No change.  <b>The storybook, and documentation portfolio, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b>
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	Delete E. No semifinalists. No online storybook reading/interview.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u> C.1.-C.2. Participants email the PDF of the documentation portfolio, and PDF or hyperlink of the storybook, to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and "Children's Stories" in email subject line, and file names. D. Email verification will be made upon request. F. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No storybook reading/interview. Top three winners announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.) Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 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.).</i></b></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No storybook reading/interview.</p> <p>Evaluation is based on 180 points:</p> <ul style="list-style-type: none"> <li>• Digital Storybook (100)</li> <li>• Documentation Portfolio (80)</li> </ul>

## Coding

2021 Design Problem will be posted on the NJ TSA website on January 11, 2021

<b>OVERVIEW:</b>	<p>No onsite/live coding challenge. Design problem will be posted on the NJ TSA website on January 11, 2021.</p> <p><b>The solution to the design problem must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 teams of 2 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE</b>	See Page 6 of this guide for required dress code.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p>Delete A.-E. No onsite/live coding challenge. The design problem will be posted on the NJ TSA website on January 11, 2021. All design criteria will be included in the design problem. Participants will email their solutions, and any required documentation, to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Coding” in email subject line, and file names. The top three winners will be announced at the Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b></p> <p><b><i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 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.).</i></b></p>
<b>EVALUATION:</b>	Evaluation criteria will be included in the design problem.

## Computer-Aided Design (CAD), Architecture

2021 Design Problem will be posted on the NJ TSA website on January 11, 2021

<b>OVERVIEW:</b>	<p>No change.</p> <p>The design problem will be posted on the NJ TSA website on January 11, 2021.</p> <p><b>The solution to the design problem must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 individuals per chapter.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p>Delete A-E. The design problem will be posted on the NJ TSA website on January 11, 2021. Participants solve the design problem and email their solutions, in PDF format, to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and "CAD Architecture" in email subject line, and any attached file names. The top three winners will be announced at the Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b></p>
<b>EVALUATION:</b>	<p>No change.</p> <p>Evaluation is based on 150 points:</p> <ul style="list-style-type: none"> <li>• Solution to Problem (50)</li> <li>• Layout (60)</li> <li>• Architectural Application (20)</li> <li>• Software Utilization (20)</li> </ul>

## Computer-Aided Design (CAD), Engineering

2021 Design Problem will be posted on the NJ TSA website on January 11, 2021

<b>OVERVIEW:</b>	<p>No change.</p> <p>The design problem will be posted on the NJ TSA website on January 11, 2021.</p> <p><b>The solution to the design problem must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 individuals per chapter.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p>Delete A-E. The design problem will be posted on the NJ TSA website on January 11, 2021. Students solve the design problem and email their solution, in PDF format, to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and "CAD Engineering" in email subject line, and any attached file names. The top three winners will be announced at the Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b></p>
<b>EVALUATION:</b>	<p>No change.</p> <p>Evaluation is based on 150 points:</p> <ul style="list-style-type: none"> <li>• Solution to Problem (50)</li> <li>• Layout (60)</li> <li>• Engineering Application (20)</li> <li>• Software Utilization (20)</li> </ul>

## Data Science & Analytics

<b>OVERVIEW:</b>	<p>No semifinalists. No semifinal round. No visual representation. All teams create documentation portfolio, scientific poster, and poster presentation.</p> <p><b>The documentation portfolio, and poster presentation, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 teams of 2 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u>            C.1.-C.2. PDF of the documentation portfolio, and PDF or hyperlink of the scientific poster presentation, are emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Data Science &amp; Analytics” in email subject line, and file names.            D. Email verification will be made upon request.            F. All teams record and submit a scientific poster presentation.            H.1.-H.4. All teams record and submit a scientific poster presentation up to five (5) minutes in length. Presentation may be submitted as a PDF, or hyperlink, and must show the scientific poster. No live presentation/interview.            I. Judges score the scientific poster presentations. No live presentation/interview.            J. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u>            No semifinalists. No visual representation and synopsis challenge. Top three winners announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b>  <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 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.).</i></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u>            No change.</p> <p><u>Delete Semifinal Round.</u>            No semifinalists. No visual representation and synopsis challenge.</p> <p>Evaluation is based on 150 points:</p> <ul style="list-style-type: none"> <li>• Documentation Portfolio (70)</li> <li>• Scientific Poster Presentation (80)</li> </ul>

## Debating Technological Issues

2021 Topic: Internet as a necessity, not a luxury.

Sub Topic 1: The government should prioritize improving or initiating Internet connections in rural areas.

Sub Topic 2: School districts must provide hotspots to all students.

Sub Topic 3: Small businesses must receive subsidized Internet from the government.

The selected Sub Topic will be posted on the NJ TSA website at 5pm on February 25, 2021. Participants record a debate-style presentation with their team member, and email the video by 5pm on March 2, 2021.

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

<b>OVERVIEW:</b>	<p>The selected Sub Topic will be posted on the NJ TSA website at 5pm on February 25, 2021. Participants record a debate-style presentation with their team member, and email the video by 5pm on March 2, 2021.</p> <p>Participants prepare and deliver a debate-style presentation. Teams will prepare both the Pro and Con side of a selected topic. There is no live debate with teams from other schools. Team members present opposing views of the assigned topic, and record their presentation/debate.</p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 teams of 2 members per chapter.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p>1. Selected Sub Topic will be posted on the NJ TSA website at 5pm on February 25, 2021. Participants record a debate-style presentation with their team member, and email the video (URL) and Summary of References (PDF) to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by 5pm on March 2, 2021. Include ID# and “Debating Tech Issues” in email subject line, and file names. No live debate against other schools.</p> <p>3.-5. Selected sub topic will be posted at 5pm on February 25, 2021. Video of debate presentation must be emailed by 5pm on March 2, 2021.</p> <p>9. Participants are responsible for tracking their time.</p> <p>10.a.-b. Teams present opposing views of the topic. Order of debate format: a. Pro Speaker (maximum of 2 minutes) b. Con Speaker (maximum of 2 minutes). Teams may use the following suggested format to present opposing views:          -Introduction          -Position</p>



	<p>-Conclusion</p> <p>Delete 10.c.-h.</p> <p>12. The Pro speaker will be first to present.</p> <p>Delete 13.-15. Team members must track their own time while recording their presentation.</p> <p>18. The video recording should end when the Con Speaker is finished.</p> <p>Delete 19-34. Team members present opposing sides of the assigned topic. They each have two minutes to present and record the presentation.</p> <p>35. Top three winners are announced at Awards Ceremony.</p>
<b>EVALUATION:</b>	<p>No semifinal round. Each team member has two (2) minutes to present their side. Delete Cross Examination, Question Responses, and Rebuttal from Criteria on Official Rating Form.</p> <p>Evaluation is based on 80 points for the following criteria:</p> <ul style="list-style-type: none"> <li>• Points of Argument (10)</li> <li>• Organization (10)</li> <li>• Topic Knowledge (20)</li> <li>• Delivery (20)</li> <li>• Voice and Language (10)</li> <li>• Group Member Participation (one pro, one con) (10)</li> </ul>

## Digital Video Production

### 2021 Design Challenge: Interview with your future self

<b>OVERVIEW:</b>	<p>No semifinalists. No on-line interview.</p> <p><b>Note:</b> NJ TSA reserves the right to disqualify any entries that contain inappropriate content. These entries will not be judged.</p> <p><b>The video, and documentation portfolio, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u> D.2.-D.3. Participants email a PDF of their documentation portfolio, and hyperlink to the video, to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Digital Video Production” in email subject line, and file names. E.-F. Judges evaluate all videos and documentation portfolios. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No interview. Top three winners are announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b> <b><i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 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.).</i></b></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No interview.</p> <p>Evaluation is based on 100 points:</p> <ul style="list-style-type: none"> <li>• Video Production (70)</li> <li>• Documentation Portfolio (30)</li> </ul>

## Engineering Design

The annual design challenge for 2021 is unchanged from the 2020 National TSA Conference due to the broadness of the topic. Student members may not use an entry that has already been submitted. The design challenge is to identify a need in a developing country, and design a project that will enable that community to fulfill that need (for ideas, check out: [Engineers Without Borders](#) and other similar organizations that are helping people build better, safer communities).

<b>OVERVIEW:</b>	<p>No change.</p> <p><b>The documentation portfolio, and digital display, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 teams of 3-6 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u>            C.1.-C.2. Participants email the PDF of the documentation portfolio, and digital display, to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Engineering Design” in email subject line, and file names.            D. Email verification is made upon request.            F. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u>            No semifinalists. No presentation/interview. Top three winners announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the State Conference online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b>  <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 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.).</i></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u>            No change.</p> <p><u>Delete Semifinal Round.</u>            No semifinalists. No presentation/interview.</p> <p>Evaluation is based on 170 points:</p> <ul style="list-style-type: none"> <li>• Digital Display (30)</li> <li>• Documentation Portfolio (120)</li> <li>• Prototype/Model (20)</li> </ul>

## Essays on Technology

The 2021 topic and sources will be posted on the NJ TSA website at 5pm on February 25, 2021. Participants email their completed essay by 5pm on March 2, 2021.

Please note—this event has an **earlier due date** than other events. Participants have a limited amount of time to write their essay.

<b>OVERVIEW:</b>	No change. Topic and sources will be posted on the NJ TSA website at 5pm on February 25, 2021. All participants email their completed essay by 5pm on March 2, 2021.
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 individuals per chapter.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>REGULATIONS AND REQUIREMENTS:</b>	A.-I. Essay prompt/topic, and articles, will be posted on the NJ TSA website at 5pm on February 25, 2021. Participants must email their completed essay to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by 5pm on March 2, 2021. Include ID# and “Essays on Technology” in email subject line, and in file name. K. Top three winners are announced at Awards Ceremony.
<b>EVALUATION:</b>	No change.  Evaluation is based on 110 points: <ul style="list-style-type: none"> <li>• Essay (110)</li> </ul>

## Extemporaneous Speech

The 2021 topic will be posted on the NJ TSA website at 5pm on February 25, 2021. Participants record their speech, and email it by 6pm the same day.

Please note—this event has an **earlier due date** than other events. Participants have a limited amount of time to give their speech.

<b>OVERVIEW:</b>	Topic will be posted on the NJ TSA website at 5pm on February 25, 2021. Participants record their three-to-five (3-5) minute speech, and email it by 6pm the same day.
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 individuals per chapter.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>REGULATIONS AND REQUIREMENTS:</b>	A.4. Notes for speaking may be written once the topic is announced. Participants have one (1) hour to view topic, take notes, record speech, and submit it. B.1. Participants have one (1) hour to view topic, take notes, record speech, and submit it. C.1.-C.5. Topic will be posted on the NJ TSA website at 5pm on February 25, 2021. Participants have one (1) hour to view topic, take notes, record speech, and submit it. The three-to-five (3-5) minute speech (or URL) must be emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by 6pm on February 25, 2021. Include ID# and “Extemporaneous Speech” in email subject line. Emails will be time stamped and act as proof of receipt within 6pm deadline. E. No finalists. Top three winners announced at Awards Ceremony.
<b>EVALUATION:</b>	No change.  Evaluation is based on 80 points: <ul style="list-style-type: none"> <li>• Speech (80)</li> </ul>

## Fashion Design and Technology

2021 Design Challenge: In the professional workforce, proper work attire is essential. Students consider the challenges faced in workplace fashion and create three (3) prototypes of proper, professional workplace attire. For example, someone working in an industry surrounded by harmful chemicals would need a uniform to protect them from that environment. Technological elements must be included in the construction of the garment.

<b>OVERVIEW:</b>	No semifinalists. No live presentation/interview. All teams create a presentation video in which they present their garment designs and discuss the design process.  <b>The documentation portfolio, and presentation video, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b>
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 teams of 2-4 members per chapter. Teams of 1 member are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u>            C.1.-C.2. Participants email the PDF of the documentation portfolio, and PDF or hyperlink to the presentation video, to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and "Fashion Design and Technology" in email subject line, and file names.            D. Email verification is made upon request.            F. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Semifinal Round:</u>            A.1.-A.2. No semifinalists. All teams create presentation video. No live interview.            A.3. Teams may designate as many members as they choose to display the designs in the video.            4. The presentation video should be no more than five (5) minutes in length.            5. Teams shall showcase the quality of the construction during their presentation video. No interview. Refer to the official rating form for additional information.            B. Judges score the wearable prototypes and presentation videos. No interviews.            C. Top three winners announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)            Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 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.).</i></b></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u>            No change.</p>

Semifinal Round:

B. No semifinalists. No interview. All teams create presentation video.

Evaluation is based on 210 points:

- Documentation Portfolio (70)
- Patterns (20)
- Quality of garments (50)
- Presentation Video (70)

## Future Technology and Engineering Teacher

<b>OVERVIEW:</b>	No change  <b>The instructional video, and lesson plan video, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b>
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	3 individuals per chapter.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	C. No semifinalists. All participants create lesson plan video (and instructional video).
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u>            B.1. The video cannot exceed a duration of more than five (5) minutes.            C.1. The hyperlinks for the instructional video, and lesson plan video, must be emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Future Technology and Engineering Teacher” in email subject line, and file names.            D. Email verification is made upon request.            F. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Semifinal Round:</u>            A.7. The lesson plan video (up to five (5) minutes in length) is submitted via email with the instructional video. No semifinalists. All participants create lesson plan video. No presentation/interview.            Delete D.-E. No presentation/interview. All participants submit lesson plan video along with instructional video.            F. Top three winners announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u>            No change.</p> <p><u>Semifinal Round:</u>            Delete B. No semifinalists. No presentation/interview. All participants submit lesson plan video via email (along with instructional video).</p> <p>Evaluation is based on 180 points:</p> <ul style="list-style-type: none"> <li>• Instructional Video (80)</li> <li>• Lesson Plan Video (100)</li> </ul>



## Geospatial Technology

2021 Problem Challenge: Research a local, regional, state, or national transportation issue.

<b>OVERVIEW:</b>	No semifinalists. No semifinal defense presentation/interview.  <b>The documentation portfolio, and visual infographic map, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b>
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 teams of up to 3 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u> C.1.-C.2. PDF of the documentation portfolio, and PDF of the visual infographic map, must be emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Geospatial Technology” in email subject line, and file names. D. Email verification will be made upon request. F. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No defense presentation/interview. Top three winners announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the State Conference online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b> <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 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.).</i></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No defense presentation/interview.</p> <p>Evaluation is based on 150 points:</p> <ul style="list-style-type: none"> <li>• Documentation Portfolio (100)</li> <li>• Visual Infographic Map (50)</li> </ul>

## Information Technology Fundamentals + Preparation Exam

<b>OVERVIEW:</b>	No change
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	3 individuals per chapter.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p>D. The top three winners are announced at Awards Ceremony.</p> <p><b><i>No school or individual names are to be used; 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 used when taking exam.</i></b></p>
<b>EVALUATION:</b>	<p>No change.</p> <p>Evaluation is based on 100 points:</p> <ul style="list-style-type: none"> <li>• Test (100)</li> </ul>

## Music Production

<b>OVERVIEW:</b>	<p>No change.</p> <p><b>The documentation portfolio and musical piece must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u>  D.1-D.2. PDF of documentation portfolio, and musical entry (email attachment or hyperlink), are emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Music Production” in email subject line, and file names.  E. Email verification is made upon request.  G. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u>  No semifinalists. No interview. Top three winners announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#’s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b>  <b><i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students’ individual ID#s (e.g. if a student ID# is 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.).</i></b></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u>  No change.</p> <p><u>Delete Semifinal Round.</u>  No semifinalists. No interview.</p> <p>Evaluation is based on 100 points:</p> <ul style="list-style-type: none"> <li>• Musical Piece (70)</li> <li>• Documentation (30)</li> </ul>

## On Demand Video

The 2021 theme will be posted on the NJ TSA website at 5pm on February 25, 2021.  
Participants email their completed video and documentation by 5pm on March 2, 2021.

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

<b>OVERVIEW:</b>	<p>Participants will write, shoot and edit a sixty (60) second video.</p> <p>The theme and any required criteria will be announced on the NJ TSA website at <b>5pm on February 25, 2021</b>.</p> <p>The video and documentation must be <b>emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by 5pm on March 2, 2021</b>.</p> <p><b>Note:</b> NJ TSA reserves the right to disqualify any entries that contain inappropriate content. These entries will not be judged.</p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p>A.1.-A.4. The theme, and any required criteria, will be posted on the NJ TSA website at 5pm on February 28, 2021. Completed video and documentation must be emailed by 5pm on March 2, 2021.</p> <p>B.3. Participants must email the PDF of their documentation, and the URL of the video, to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by 5pm on March 2, 2021. Include ID# and “On Demand Video” in email subject line, and file names.</p> <p>D. No finalists. Top three winners announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b></p> <p><b><i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 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.).</i></b></p>
<b>EVALUATION:</b>	<p>No change.</p> <p>Evaluation is based on 100 points:</p> <ul style="list-style-type: none"> <li>• Production (100)</li> </ul>

# Optical Engineering

2021 Design Problem will be posted on the NJ TSA website on January 11, 2021

**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.

<b>OVERVIEW:</b>	<p>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.</p> <p>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 digital display (including a prototype/device). Participants will present and defend their solution in a timed presentation.</p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	3 teams of 3-6 members per chapter. Teams of 1 member are permitted.
<b>TIME LIMITS:</b>	<ol style="list-style-type: none"> <li>1. Entries must be started and completed during the current school year.</li> <li>2. Documentation portfolio, digital display (including prototype/device) and presentation video must be emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021.</li> <li>3. Teams create a presentation video, no more than five (5) minutes in length, to present their solutions, and demonstrate the prototype/device.</li> </ol>
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PROCEDURE:</b>	<ol style="list-style-type: none"> <li>1. Participants email their entries to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and "Optical Engineering" in email subject line, and file names. Entries consist of:             <ol style="list-style-type: none"> <li>a. documentation portfolio (emailed as PDF)</li> <li>b. digital display (emailed as PDF)</li> <li>c. prototype/device (featured in the digital display and presentation video)</li> <li>d. presentation video, up to 5 minutes in length (emailed as hyperlink)</li> </ol> </li> <li>2. Entries are reviewed by a panel of Edmund Optics Engineers.</li> <li>3. The 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place winners are announced at the Awards Ceremony.</li> </ol>
<b>REGULATIONS AND REQUIREMENTS:</b>	<p>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 creative and plausible solution.</p> <p>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.</p> <p>C. A Documentation portfolio is required and should be saved as a multi-page PDF</p>

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](http://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 digital display must be saved as a PDF and should include, at a minimum, the following: (a) photographs of the prototype; (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 should be highlighted in the digital display and presentation video.

F. If the physical model/s or prototype/s require power, they must be powered by dry cell(s) or photo-voltaic cells.

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 video, each team has a maximum of (5) minutes to present their entry.

***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.).
<b>EVALUATION:</b>	<p>Evaluation is based on 230 points:</p> <ul style="list-style-type: none"> <li>• Documentation (120)</li> <li>• Display (including prototype/device) (50)</li> <li>• Presentation/Interview (60)</li> </ul> <p>Please see the rating form on the following pages.</p>
<b>STEM INTEGRATION:</b>	This event aligns with the STEM educational standards noted below. Science, Technology, Engineering, Mathematics
<b>PRIMARY LEADERSHIP SKILLS:</b>	<p>Leadership skills promoted in this event:</p> <ul style="list-style-type: none"> <li>• COMMUNICATION — Students choose an existing design problem and develop and explain their solution. Suggested leadership lessons: <i>Personality Types</i> and <i>Promote It</i></li> <li>• CRITICAL THINKING — Students analyze and evaluate a problem in order to develop an acceptable solution. Suggested leadership lessons: <i>And The Answer Is</i> and <i>Critical Thinking Tips</i></li> <li>• PROBLEM SOLVING — Students devise a plan that will yield an acceptable solution. Suggested leadership lessons: <i>Debate It</i> and <i>Effective Brainstorming</i></li> </ul> <p><i>Additional leadership skills promoted in this event: creative thinking, decision making, ethics, evaluation, organization, teamwork</i></p>
<b>TSA AND CAREERS:</b>	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 <i>The 16 Career Clusters</i> chart and the <i>TSA Competitions and The 16 Career Clusters</i> grid as resources for information about careers.
<b>CAREERS RELATED TO THIS EVENT:</b>	<p>Optical engineer  Mechanical engineer  Manufacturing consultant  Mathematician  CAD Technician</p>

Participant ID/Team ID# \_\_\_\_\_

# OPTICAL ENGINEERING

**2021 OFFICIAL RATING FORM**

**HIGH SCHOOL**

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)

<b>Portfolio components</b> (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.	
<b>Problem definition</b> (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.	
<b>Explanation of importance</b> (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.	
<b>Problem solution</b> (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.	
<b>Patent application</b> (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.	
<b>Plan of Work log</b> (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.	
<b>References and resources</b> (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)

## Digital Display and Model (50 Points)

<b>Aesthetics</b> (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.	
<b>Model/Prototype</b> (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.	
<b>Overall impact</b> (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 initiated by the judge, coordinator, and manager of the event. Record the deduction in the space to the right.  
 Indicate the rule violated: \_\_\_\_\_

**Presentation Video (60 Points)**

<b>Organization</b> (X1)	Team seems unprepared and unorganized for the presentation/ interview, 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/interview with judges is well organized; the interview is concise and logical, with a clear explanation of the development of the project.	
<b>Knowledge</b> (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.	
<b>Articulation</b> (X1)	The presentation and interview provide an unclear, unorganized, and or illogical description of the project.	The presentation and interview offer a somewhat logical and easy-to-understand project description.	The presentation/interview provides a clear, concise, and easy-to-follow description of the project.	
<b>Delivery</b> (X1)	The team is verbose and/or uncertain in its presentation/ interview; participants' posture, gestures, and lack of eye contact diminish the delivery.	The team is somewhat well-spoken and clear in its presentation/ interview; participants' posture, gestures, and eye contact result in an acceptable delivery.	The team is well-spoken and distinct in its presentation/ interview; participants' posture, gestures, and eye contact result in a polished, natural, and effective delivery.	
<b>Team participation</b> (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.	
<b>Responses to judges' questions</b> (X1)	The team's answers to questions reflect a lack of understanding and sophistication; only one or two team members contribute.	The team's answers to questions reflect an adequate degree of understanding and sophistication; team members all participate somewhat.	The team's answers to questions reflect a high degree of understanding and sophistication; team members participate equally.	

**PRESENTATION/INTERVIEW SUBTOTAL (60 points)**

Rules violations (a deduction of 20% of the total possible points for the above sections) must be initiated 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 (230 points)**

Comments:

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

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

# Photographic Technology

2021 Theme: Nature

<b>OVERVIEW:</b>	<p>No semifinalists. No semifinal challenge. No semifinal presentation/interview.</p> <p><b>The photographic portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	2 individuals per chapter.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u> C.1.-C.2. PDF of the photographic portfolio is emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Photographic Technology” in email subject line, and file name. D. Email verification will be made upon request. F. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No semifinal challenge. No semifinal presentation/interview.</p> <p>Please read Regulations carefully, paying close attention to image requirements, order of pages, etc.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the State Conference online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b></p>
<b>EVALUATION:</b>	<p><u>Preliminary round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No semifinal challenge. No semifinal presentation/interview.</p> <p>Evaluation is based on 60 points:</p> <ul style="list-style-type: none"> <li>• Photographic Portfolio (60)</li> </ul> <p><b>Please take note of the Criteria used for evaluation of the Portfolio on the Official Rating Form:</b></p> <ul style="list-style-type: none"> <li>• Principles and Elements of Design and Composition and Creativity (10)</li> <li>• Technical Quality (10)</li> <li>• Impact and Theme (10)</li> <li>• Written Statements (10)</li> <li>• Resources/References (20)</li> </ul>

## Prepared Presentation

The 2021 topic will be posted on the NJ TSA website at 5pm on February 25, 2021. Participants email their completed presentation by 5pm on March 2, 2021.

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

<b>OVERVIEW:</b>	No change.
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 individuals per chapter.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>REGULATIONS AND REQUIREMENTS:</b>	A.-F. The topic will be posted on the NJ TSA website at 5pm on February 25, 2021. Participants email their completed presentation (URL) to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by 5pm on March 2, 2021. Include ID# and “Prepared Presentation” in email subject line. J. Participants must track their own time while recording presentation. M. Top three winners announced at Awards Ceremony.
<b>EVALUATION:</b>	No change.  Evaluation is based on 100 points: <ul style="list-style-type: none"> <li>• Presentation Documentation (30)</li> <li>• Presence (30)</li> <li>• Organization (40)</li> </ul>

## Promotional Design

2021 Design Challenge: Since Perkins v Legislation requires that each school have a Program Advisory Committee populated by local individuals from business and industry, contestants must create a packet of promotional items, with the intent of recruiting those business and industry leaders to serve on the local committee.

<b>OVERVIEW:</b>	No semifinalists. No semifinal design challenge.  <b>The digital marketing portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b>
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 individuals per chapter.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u> C.1.-C.2. PDF of the digital marketing portfolio is emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Promotional Design” in email subject line, and file name. D. Email verification will be made upon request. F. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No semifinal challenge.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the State Conference online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No semifinal challenge.</p> <p>Evaluation is based on 110 points:</p> <ul style="list-style-type: none"> <li>• Promotional Folder Cover (40)</li> <li>• Promotional Folder Contents (70)</li> </ul>

## Scientific and Technical Visualization (SciVis)

<b>OVERVIEW:</b>	<p>No change.</p> <p><b>The documentation portfolio and visualization must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b></p>
<b>MANDATORY REQUIREMENTS:</b>	<p>The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.</p> <p>Students must adhere to all guidelines set forth by their school/chapter.</p>
<b>ELIGIBILITY:</b>	3 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u>  D.1.-D.2. PDF of the documentation portfolio, and hyperlink to the visualization, is emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “SciVis” in email subject line, and file names.  E. Email verification will be made upon request.  G. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u>  No semifinalists. No interview. Top three winners announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b>  <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 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.).</i></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u>  No change.</p> <p><u>Delete Semifinal Round.</u>  No semifinalists. No interview.</p> <p>Evaluation is based on 130 points:</p> <ul style="list-style-type: none"> <li>• Visualization (80)</li> <li>• Documentation (50)</li> </ul>

## Software Development

<b>OVERVIEW:</b>	No change.  <b>The demonstration video showing the software design must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b>
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	B. Participants create a demonstration video.
<b>REGULATIONS AND REQUIREMENTS:</b>	A.1.-A.2. Participants create a demonstration video to highlight their software development project. No live presentation/interview. Hyperlink of the demonstration video must be emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Software Development” in email subject line. A.3. Teams may designate as many representatives as they choose to demonstrate the functionality of the software design in the video. A.4. Participants are allotted a maximum of five (5) minutes to present their design in the video. A.5. No live presentation/interview. Video demonstration only.  <i><b>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.).</b></i>
<b>EVALUATION:</b>	No change.  Evaluation is based on 100 points: <ul style="list-style-type: none"> <li>• Software Design (70)</li> <li>• Demonstration (30)</li> </ul>

## Transportation Modeling

2021 Theme: The History of Supersonic Aircraft

<b>OVERVIEW:</b>	No change.  <b>The documentation portfolio, and presentation video (highlighting the model/display), must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b>
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 individuals per chapter.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u>  D.1.-D.2. PDF of the documentation portfolio, and hyperlink of the presentation video, are emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Transportation Modeling” in email subject line, and file names.  D. Email verification will be made upon request.  G. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Semifinal Round:</u>  A.1.-A.3. No semifinalists. No live presentation/interview. All participants create a presentation video, up to five (5) minutes in length, to show their model and display. Delete A.4. No semifinalists. No live presentation/interview.  B. Judges score the presentation videos.  C. No finalists. Top three winners are announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></b></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u>  No change.</p> <p><u>Semifinal Round:</u>  A.-B. No semifinalists. All participants create presentation video to show their model/display. No live presentation/interview.</p> <p>Evaluation is based on 150 points:</p> <ul style="list-style-type: none"> <li>• Documentation (70)</li> <li>• Model and Display (50)</li> <li>• Presentation Video (30)</li> </ul>

## Video Game Design

2021 Theme: An adventure game

<b>OVERVIEW:</b>	No semifinalists. No presentation/interview.  <b>The documentation portfolio, and video game, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b>
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<p><u>Preliminary Round:</u> D.1.-D.2. PDF of the documentation portfolio, and hyperlink/upload to the game entry, are emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and “Video Game Design” in email subject line, and file names. E. Email verification will be made upon request. G. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No presentation/interview. Top three winners announced at Awards Ceremony.</p> <p><b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.) Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 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.).</i></b></p>
<b>EVALUATION:</b>	<p><u>Preliminary Round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No presentation/interview.</p> <p>Evaluation is based on 110 points:</p> <ul style="list-style-type: none"> <li>• Game Design (80)</li> <li>• Documentation (20)</li> <li>• Possible Bonus Points for unique and exceptional game features (10)</li> </ul>



# Webmaster

## 2021 Theme: Medical On Demand

**Context:** Due to recent global events, consumers and the healthcare industry were forced to change their medical screening practices. Virtual appointments via mobile interfacing and webcam communications have been used for patients that were unable to or restricted from physically seeing a doctor.

**Challenge:** Create a fictional medical telecommunications company and design a website. The website should serve as a guide for information about the company and their communication services provided. Present an overview of services as if you were a consumer. Provide the type of solutions your company creates, sells, and/or serves. Sections of the site may include photos, product descriptions, renderings, company history, contact, and news updates.

<b>OVERVIEW:</b>	No semifinalists. No interview.  <b>The website, and any required forms, must be finished, submitted, and accessible via the Internet by 11:59pm on March 29, 2021.</b>
<b>MANDATORY REQUIREMENTS:</b>	The <i>TSA Student and Parent Consent and Release and Acceptable Use Policy</i> form does NOT need to be forwarded to the NJ TSA office.  Students must adhere to all guidelines set forth by their school/chapter.
<b>ELIGIBILITY:</b>	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
<b>ATTIRE:</b>	See Page 6 of this guide for required dress code.
<b>PREPARATION:</b>	No change.
<b>REGULATIONS AND REQUIREMENTS:</b>	<u>Preliminary Round:</u> I.1.-I.2. Hyperlink to the website, and PDF files of any required forms (e.g. Copyright Checklist), must be emailed to <a href="mailto:tsachall@tcnj.edu">tsachall@tcnj.edu</a> by March 29, 2021. Include ID# and "Webmaster" in email subject line, and file names. J. Email verification will be made upon request. L. No semifinalists. Winners announced at Awards Ceremony.  <u>Delete Semifinal Round.</u> No semifinalists. No interview. Top three winners announced at Awards Ceremony.  <b><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.) Team ID#'s may be used for team events. A Team ID# is the first four numbers of students' individual ID#'s (e.g. if a student ID# is 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.).</i></b>
<b>EVALUATION:</b>	<u>Preliminary Round:</u> No change.  <u>Delete Semifinal Round.</u> No semifinalists. No interview.  Evaluation based on 130 points: <ul style="list-style-type: none"> <li>• Website (130)</li> </ul>