



Arkansas Middle School Competitive Events Guide

2026

Table of Contents

TSA Honor Statement.....	3
Testing Events.....	4
Chapter Team.....	6
Coding.....	11
Cybersecurity.....	14
Electrical Applications.....	16
Forensic Technology.....	18
Tech Bowl.....	20
On-Site Only Events.....	24
Challenging Technology Issues.....	26
Dragster.....	28
Inventions and Innovations.....	32
Leadership Strategies.....	34
Prepared Speech.....	36
Problem Solving.....	38
Robotics.....	40
Solar Racer.....	50
System Control Technology.....	58
Pre-Submission Events.....	62
Biotechnology.....	64
Career Prep.....	66
Children's Stories.....	68
Community Service Video.....	72
Construction Challenge.....	74
Data Science & Analytics.....	76
Digital Photography.....	80
Drone Challenge (UAV).....	84
Mass Production.....	92
Mechanical Engineering.....	96
Medical Technology.....	100
Microcontroller Design.....	104
Off the Grid.....	106
Pin Design.....	110
Promotional Marketing.....	112
STEM Animation.....	116
Video Game Design.....	118
Website Design.....	120
Remote Only Competitions.....	122
Audio Podcasting.....	124
Computer-Aided Design (CAD) Foundations.....	126
Technical Design.....	128

TSA Honor Statement

All work must be created and completed by individual competitors or teams. Plagiarism, the use of Generative Artificial Intelligence (GenAI) software, copyright violation, cheating, and falsification of information are prohibited. Participants may NOT use any generative artificial intelligence (GenAI) tools (e.g. ChatGPT, Google Gemini, GitHub Copilot, etc.). Any attempt to gain an unfair advantage will not be tolerated. Competitors at any level of TSA competition understand and agree to abide by the TSA Honor Statement. If it is determined that a student violated the TSA Honor Statement, the entry will be disqualified.

Testing Events

For the events below, all student teams from the same chapter must take their tests at the same time, but individually.

- Each test is 60 minutes long and timed by the testing system.
- The tests will be available each weekday from 12/1/2025 to 1/14/2026 (inclusive) between 7:00 am and 5:00 pm EXCEPT between 12/19/25 and 1/5/26.
- Advisors will get an email from Allison Carter that has their student testing tickets.
- If a student starts the test and moves to a different window/tab for more than 3 seconds, the test will automatically submit.
- The test will work best in Chrome browsers, but is compatible with all browsers EXCEPT Internet Explorer.
- All teams that progress to the semifinal round must be composed of the same set of students that were registered as a team for the test.

Event name
Chapter Team
Coding
Cybersecurity
Electrical Applications
Forensic Technology
Tech Bowl



This page was
intentionally left
blank(ish).

Chapter Team

Who

6 members per team
Unlimited teams per chapter
5 teams will progress to the semifinals based on their averaged test score.

Where

On-Site with a pre-conference test.

When

The testing window is open from the time the team's chapter registers for the Conference and closes at 5:00 PM on 1/14/2026.
The on-site portion is on March 4, 2026.

What

Participants take a parliamentary procedure test to qualify for the semifinal round of competition. Semifinalists conduct an opening ceremony, items of business, parliamentary actions, and a closing ceremony.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Test	<input type="checkbox"/> Demonstration

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Pre-Conference Preliminary Round - The Test

MUSTS

1. The one (1)-hour test is administered to all members of the team at the same time.
2. Each member takes the test individually and simultaneously.
3. These same six (6) team members compete in the semifinal round of the event, should the team qualify.

CANNOTS

Members cannot consult each other on answers or use resources during the test.

OTHER CONSIDERATIONS

1. The average of the test scores of the six (6) team members will be divided by five (5) for the score that determines team ranking.
2. Teams consist of a president, vice president, secretary, treasurer, reporter, and sergeant-at-arms, though the contestants do not need to hold these offices in their chapter.

On-Site Semifinal Round - The Demonstration

MUSTS

1. Teams have a time limit of fifteen (15) minutes to complete a presentation that incorporates the set-up time, items of business, and required parliamentary actions.
2. Official timing will begin when the materials are given to the president and will stop at the team's final gavel to end the meeting.

3. At the conclusion of the oral presentation, each team secretary has five (5) minutes to write a copy of chapter minutes that will be submitted to an evaluator. The coordinator will begin timing the five (5) minutes when the secretary is seated at the area designated for writing of the minutes.
4. All materials given to team members, and the chapter minutes recorded during the presentation, must be handed to the evaluators before the team leaves the room.

CANNOTS

1. Written materials, other than those provided by National TSA, may not be taken in the event room.
2. No reference should be made to a team's school, chapter name, city, or state. Exception: The state name on a TSA patch is acceptable.

OTHER CONSIDERATIONS

1. Five (5) points will be deducted for every thirty (30)-second interval over the allotted time.
2. Bonus points will be awarded for additional motions and parliamentary actions by the officers, other than the president.

How

Overall

1. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
2. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

3. Participants take the test individually through the JudgePro system any time between when their chapter registers for the state conference and 5:00 PM on 1/14/26.
4. Participants follow the specific regulations and adhere to the directions provided by their proctor.
5. All team members must test at the same time but will take the exam individually.

The Demonstration

6. Materials provided to teams:
 - a. A set consisting of secretary's minutes, copy of Chapter Team Official Minutes form for secretary's minutes, a treasurer's report, a copy of the TSA creed, and a list of parliamentary actions.
 - b. Paper, six (6) pens, a calculator, and six (6) 3" x 5" note cards.
 - c. Gavel
 - d. Optional materials: A timepiece and/or a non-programmable calculator may be used by a team.
7. Room setup:
 - a. Officer symbols and gavel (only) are placed on a long table with the United States flag positioned to the right of the president's rostrum (if available) and the host state flag to the left.
 - b. The president's rostrum (if available) should be centered between the two (2) flags.
 - c. The symbols of the officers should be placed in front of the respective officers.
8. The semifinal portion of the event includes:
 - a. The call to order
 - b. The pledge to the flag
 - c. Roll call
 - d. Order of business
 - e. Closing ceremony

Notes

There are a number of ways to learn about parliamentary procedure. The standard reference is *Robert's Rules of Order, Newly Revised*. Information about the latest edition of parliamentary procedure may be found online at robertsrules.com. Additional information may be found online at www.parliamentarians.org. For writing proper minutes, also refer to *Robert's Rules of Order, Newly Revised*.

CHAPTER OPENING AND CLOSING CEREMONIES

OPENING CEREMONY

- A. At the prescribed time for meetings, the president assumes his/her position behind the rostrum in the front center of the room.
- B. Other officers are seated to the left and right of the president. They are seated in this order from stage left to right: vice president, treasurer, secretary, president, reporter, and sergeant-at-arms.

HOST STATE BANNER (OPTIONAL)

U.S. FLAG SGT.-AT-ARMS REPORTER PRESIDENT SECRETARY TREASURER VICE PRES. STATE FLAG

(OFFICERS FACING AUDIENCE)

AUDIENCE

- President: (raps gavel twice) The meeting will please come to order. Mr./Ms. Sergeant-at-Arms, are all the officers in their places?
- Sergeant-at-Arms: They are, Mr./Ms. President.
- President: (raps three [3] times for assembly to rise) Mr./Ms. Sergeant-at-Arms, please lead the assembly in the Pledge to the Flag of the United States of America.
- Sergeant-at-Arms: (leads Pledge to the Flag)
- President: (raps once and assembly is seated) Mr./Ms. Secretary, will you please call the roll.
- Secretary: Mr./Ms. Sergeant-at-Arms.
- Sergeant-at-Arms: Present. The symbol of my office is the "hearty handshake" (officer points to symbol), and it is my responsibility to see that the assembly is comfortable and properly welcomed. It is also my duty to serve as doorkeeper for this organization.
- Secretary: Mr./Ms. Reporter.
- Reporter: Present. The symbol of my office is the beacon tower (officer points to symbol), and it is my duty to see that our school, community, and national association have a complete report of our organization's activities.
- Secretary: Mr./Ms. President.
- President: Present. The symbol of my office is the gavel (officer points to symbol). The duties vested in me by my office are to preside at all regular and special meetings of this organization and to promote cooperation in carrying out the activities and work of our organization. Mr./Ms. Secretary.
- Secretary: Present. The symbol of my office is the pen (officer points to symbol), and it is my responsibility to see that accurate and proper records are kept of all business and correspondence of this association. Mr./Ms. Treasurer.

Treasurer: Present. The symbol of my office is a balanced budget (officer points to symbol), and it is the duty of my office to keep accurate records of all funds and see that our financial obligations are met promptly.

Secretary: Mr./Ms. Vice-President.

Vice President: Present. The symbol of my office is a star (officer points to symbol), and it is the duty of my office to see that we always have a strong membership, a good work program, and are alert to the welfare of our chapter.

Secretary: Mr./Ms. President, all officers are present and in their place.

President: Mr./Ms. Sergeant-at-Arms, do we have guests present?

Sergeant-at-Arms: If so, introduce guest(s); if not, state the following: No, Mr./Ms. President.

President: Mr./Ms. Secretary, we are ready to transact our business.

Teams dispose of the assigned business following the suggested order of business.

CLOSING CEREMONY

President: (raps three [3] times; assembly rises) Mr./Ms. Secretary, will you please (read) or (lead us in) the TSA Creed.

Secretary: (recites the TSA Creed; when presented at state and national competitions, the creed may be presented in some more original method.)

President: Will the assembly repeat the TSA Motto after me. (Motto is spoken.) Does anyone know of any reason why this assembly should not adjourn? If not, I will entertain a motion to adjourn. (following motion to adjourn, a second, and a vote) I now declare this meeting adjourned until a special meeting is called or until our next regular meeting (raps once with gavel).

SUGGESTED ORDER OF BUSINESS FOR CHAPTER MEETINGS

1. The president calls the meeting to order with opening ceremonies.
2. Roll call is taken and a quorum is established.
3. The secretary reads the minutes of the preceding meeting. Any necessary corrections and/or additions are made and the minutes are approved as read or corrected.
4. The treasurer's report is received as read and placed on file, subject to audit.
5. The chairperson calls for committee and officer reports as necessary. If a committee has no report, let the committee so state.
6. Unfinished business is addressed.
7. New business is addressed.
8. The program, if any, is held. The chairperson presides with the assistance of the program chairperson or the committee chairperson.
9. Make announcements.
10. Adjournment with closing ceremonies.

CHAPTER TEAM OFFICIAL MINUTES

Team ID number _____

Date _____

Location of conference _____

Participants may use the back of this page, if necessary.

Secretary's signature _____ Date _____



This page was
intentionally left
blank(ish).

Coding

Who

2 members per team
Unlimited teams per chapter
10 teams will progress to the semifinals
based on their averaged test score.

Where

On-Site with a pre-conference test.

When

The testing window is open from the time
the team's chapter registers for the
Conference and closes at 5:00 PM on
1/14/2026.
The on-site portion is on March 4, 2026.

What

To qualify for the semifinal round of competition, participants take a test that concentrates on computer science and coding. Semifinalists demonstrate their programming knowledge by developing a solution to an onsite coding challenge.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Test	<input type="checkbox"/> On-Site Challenge

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Pre-Conference Preliminary Round - The Test

MUSTS

1. The one (1)-hour test is administered to all members of the team at the same time.
2. Each member takes the test individually and simultaneously.
3. These same two (2) team members compete in the semifinal round of the event, should the team qualify.

CANNOTS

Members cannot consult each other on answers or use resources during the test.

OTHER CONSIDERATIONS

Each team's average test score is used to determine the semifinalist teams.

On-Site Semifinal Round - The Challenge

MUSTS

1. Participants respond to a design challenge consisting of a series of coding problems that must be completed on-site at the conference within a two (2)-hour time frame.
2. All work must be completed in the event area during the time specified for the event.
3. Teams are required to bring:
 - a. One (1) laptop. Laptop must be fully charged with enough battery for the duration of the semifinal round.
 - b. One (1) computer mouse (if desired).
 - c. Pencils and/or pens.
 - d. Notebook paper or copier paper.
 - e. Portable power bank (if desired).

4. Participants must have all software development tools needed for the competition downloaded and accessible on their computers.
5. All solutions must be tested, demonstrated and presented by participants in front of the judges.

CANNOTS

1. Participants may NOT use any generative artificial intelligence (AI) tools (e.g. ChatGPT, Google Gemini, GitHub Copilot, etc.) in developing their solution(s).
2. Participants do NOT have access to electrical power/outlets during the event.
3. Participants do NOT have access to the Internet during the event. The use of hot spots is not permitted.

OTHER CONSIDERATIONS

To prepare for the MS Coding competition, teams should have knowledge of concepts (software development, computer science, and coding topics) that will be on the Coding written test. They also should be familiar and comfortable with using the Scratch programming language.

Scratch is a free visual programming language available from the MIT Media Lab (<https://scratch.mit.edu/download>). An offline version of the Scratch tool should be downloaded and available on each team's laptop.

Teams that advance to the semifinalist level, based on written test performance, will perform a challenge using the Scratch programming language. Semifinalist teams will receive the challenge on site and will have two hours to complete it. (PLEASE NOTE: Semifinalist teams MUST have a version of this program available for offline use, as there will be no Internet access available during the semifinalist level of the competition.)

Examples of the types of challenges students may be asked to complete can be found at this link:

<https://scratch.mit.edu/starter-projects>

How

Overall

1. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
2. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

3. Participants take the test individually through the JudgePro system any time between when their chapter registers for the state conference and 5:00 PM on 1/14/26..
4. Participants follow the specific regulations and adhere to the directions provided by their proctor.
5. All team members must test at the same time but will take the exam individually.

On-Site Semifinal Round

6. Participants bring their own computer systems to the event area at the time and place stated in the conference program.
7. Participants are given a problem, evaluation criteria, materials, and allotted two (2) hours for the design and development of the solution.
8. Each solution is tested and presented to the judges as soon as completed.

Cybersecurity

Who

Unlimited individuals per chapter
15 individuals will progress to the semifinals based on their test score.

Where

On-Site with a pre-conference test.

When

The [theme](#) was released on 8/15/2025.
The testing window is open from the time the team's chapter registers for the Conference and closes at 5:00 PM on 1/14/2026.
The on-site portion is on March 4, 2026.

What

Participants take a test that assesses knowledge of cybersecurity vocabulary and the skills needed to execute common cybersecurity tasks. Using digital presentation software, semifinalists deliver a presentation that addresses the annual theme/problem.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Test	<input type="checkbox"/> Presentation/Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Problem Statement: MakerForge Supply Inc. is an online retailer of makerspace supplies for consumers. Previously, the company offered website chat support on their website for customers seeking answers to their questions about orders, returns, etc. The company recently deployed an artificial intelligence (AI) chatbot to answer customer’s questions as a first-step basis – prior to connecting customers with a MakerForge customer service agent. Now the company is receiving reports that the AI chatbot is exposing customer information inappropriately and providing invalid responses. Address the potential causes and propose solutions for securing and managing the AI chatbot.

Pre-Conference Preliminary Round - The Test

MUSTS

The one (1)-hour test is administered to competitors during the pre-conference testing window.

CANNOTS

Members cannot use resources during the test.

On-Site Semifinal Round - The Presentation & Interview

MUSTS

1. Any participant that is late or fails to arrive to present at the designated time results in an automatic disqualification.
2. Participants shall focus on the following in their presentation:
 - a. Identify and explain the security problem.
 - b. Explain how physical and digital security measures protect electronic information.
 - c. Use real-world data metrics and situations to support the claim.
 - d. Explain trade-offs when selecting and implementing cybersecurity recommendations.

3. Participants must use fictitious company names if needed for both the company in which the participant is “employed,” as well as the fictitious company offering cybersecurity services. Real names may not be used.
4. Participants need to provide their own laptop. AC power will not be provided.
5. Participants must be prepared to use the laptop screen to present to judges.
6. The participant must orally present key points to the corporate board members.
7. Participants must highlight their proposals with creative visual elements (e.g., graphics, photos, titles, transitions) to actively engage the audience. Participants may use images "labeled for reuse," but must properly cite the source (refer to the General Rules).
8. [Photo/Film/Video Consent and Release forms](#). If the entry contains images of people (minors require parental consent), proof of consent must be included for each person; pages as needed
9. Staple or paperclip the citation page (if necessary) and any Photo/Film/Video Consent and Release Forms (if necessary) together and present them to the corporate board members (judges) prior to the presentation.

CANNOTS

1. No identifying information other than the participant's identification number and conference title and year are permitted.
2. No commercial or copyrighted material may be used.
3. Participants cannot go over three (3) minutes for the presentation. One (1) point per ten (10)-second interval is deducted for speaking over three (3) minutes. Time commences when the presenter begins speaking.

OTHER CONSIDERATIONS

1. Five (5) minutes are allowed for the presentation and interview broken down as follows:
 - a. Three (3) minutes for the presentation
 - b. Two (2) minutes to respond to questions from judges
2. Participants may use the presentation platform of their choice, such as PowerPoint, Prezi or Google Slides, however, audio may not be used.

Resources

- NICSS Cybersecurity for Students: niccs.cisa.gov/education-training/cybersecurity-students
- NICSS CISA Learning: niccs.cisa.gov/education-training/cisa-learning
- Center for Internet Security - Insights: www.cisecurity.org/insights/all
- Cyber.org: cyber.org
- Hack the Box: www.hackthebox.com
- TryHackMe: tryhackme.com
- IBM Skillbuilder – Cybersecurity: skillsbuild.org/students/course-catalog/cybersecurity
- SANS: www.sans.org

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants take the test individually through the AnswerWrite system any time between when their chapter registers for the state conference and 5:00 PM on 1/14/26.
5. Participants follow the specific regulations and adhere to the directions provided by their proctor.

On-Site Semifinal Round

6. Participants prepare a presentation according to the regulations.

Electrical Applications

Who

2 members per team
Unlimited teams per chapter
10 teams will progress to the semifinals
based on their averaged test score.

Where

On-Site with a pre-conference test.

When

The testing window is open from the time
the team's chapter registers for the
Conference and closes at 5:00 PM on
1/14/2026.
The on-site portion is on March 4, 2026.

What

Participants take a test on basic electrical and electronic theory. In response to an onsite challenge, semifinalists assemble a specified circuit from a schematic diagram, make required electrical measurements, and explain their solution in an interview.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Test	<input type="checkbox"/> On-Site Challenge

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Pre-Conference Preliminary Round- The Test

MUSTS

1. The one (1)-hour test is administered to both members of the team at the same time during the pre-conference testing window.
2. Each member takes the test individually and simultaneously.
3. These same two (2) team members compete in the semifinal round of the event, should the team qualify.

CANNOTS

Members cannot consult each other on answers or use resources during the test.

OTHER CONSIDERATIONS

The average of the test scores of the two (2) team members will determine team ranking.

On-Site Semifinal Round- The On-Site Challenge

MUSTS

1. All work must be completed in the event area during the time specified for the event.
2. Semifinalists provide a toolkit with identification (school name, address, and advisor cell phone number). Each toolkit must contain all required materials to fabricate the solution. The following is a suggested list of materials:
 - a. (Minimum) 1.375" x 3.25" solderless circuit breadboard 10 x 30 pin positions
 - b. One (1) 9-volt battery with snap-on battery connector
 - c. One (1) speaker (wires pre-soldered)
 - d. Two (2) LEDs
 - e. Twelve (12) connector wires
 - f. Pushbutton switch (wires pre-soldered)

- g. One (1) photocell
 - h. One (1) potentiometer
 - i. One (1) IN4003 diode
 - j. One (1) IC555 integrated circuit
 - k. One (1) 2N3906 transistor
 - l. One (1) 2N3904 transistor
 - m. Resistors (minimum of one [1] each, ohms): 10, 10K, 47, 100, 220, 1K, 2.2K, 3.3K, 6.8K, 16K, 33K, 120K, 330, 470K
 - n. Capacitors (in microfarads): .01, .1, 10, 100, 1000
 - o. S106B1 SCR
 - p. Wire strippers
 - q. Standard 4-function calculator (scientific calculators will not be permitted)
 - r. Digital multimeter
3. Paper to complete on-site calculations is provided by TSA.
 4. All other equipment necessary to solve the on-site problem is provided by the coordinator.
 5. Semifinalists remain with their circuit solution until the judges have completed the interview.

OTHER CONSIDERATIONS

1 hour is provided for the on-site challenge.

How

Overall

1. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
2. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

3. Participants take the test individually through the AnswerWrite system any time between when their chapter registers for the state conference and 5:00 PM on 1/14/26..
4. Participants follow the specific regulations and adhere to the directions provided by their proctor.
5. All team members must test at the same time but will take the exam individually.

On-Site Semifinal Round

6. Semifinalists report to the event area at the time stated in the conference program.
7. Participants build a circuit from the provided schematic diagram and make electronic measurements with their multimeter at the designated positions in the circuit, within the time limit, using their own kit.
8. The semifinalist teams are interviewed before they leave.

Forensic Technology

Who

2 members per team
Unlimited teams per chapter
7 teams will progress to the semifinals based on their documentation portfolio score.

Where

On-Site with a pre-conference test.

When

The testing window is open from the time the team's chapter registers for the Conference and closes at 5:00 PM on 1/14/2026.
The on-site portion is on March 4, 2026.

What

Participants take a test of basic forensic science theory to qualify for the semifinal round of competition. Semifinalists participate in an onsite forensic skills demonstration.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Test	<input type="checkbox"/> Demonstration <input type="checkbox"/> Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Pre-Conference Preliminary Round - The Test

MUSTS

1. The one (1)-hour test is administered to both members of the team at the same time during the pre-conference testing window.
2. Each member takes the test individually and simultaneously.
3. These same two (2) team members compete in the semifinal round of the event, should the team qualify.

CANNOTS

Members cannot consult each other on answers or use resources during the test.

OTHER CONSIDERATIONS

The average of the test scores of the two (2) team members will determine the team ranking.

On-Site Semifinal Round - The Demonstration & Interview

MUSTS

Participants are responsible for bringing all of the necessary supplies to the semifinalist demonstration. Arkansas TSA will not provide any supplies.

CANNOTS

1. No reference may be made concerning the name of the team, the team members, or their school. Team members write their team identification number on any material used to demonstrate their skill.
2. No reference materials may be used during this event.
3. No observers are allowed in the event or preparation rooms during the event.

OTHER CONSIDERATIONS

1. Five (5) minutes is allowed to set up supplies and prepare the demonstration. Semifinalists are required to bring their own supplies.
2. Ten (10) minutes is allowed to demonstrate the selected skill and answer questions from the judges.
 - a. Seven (7) minutes for the demonstration
 - b. Three (3) minutes for the interview.
3. Three (3) minutes is allowed to clean the demonstration area.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants take the test individually through the AnswerWrite system any time between when their chapter registers for the state conference and 5:00 PM on 1/14/26.
5. Participants follow the specific regulations and adhere to the directions provided by their proctor.
6. All team members must test at the same time but will take the exam individually.

On-Site Semifinal Round

7. Participants report at the assigned time and place for their on-site skills challenge..
 - a. Participants use the allotted time to set up necessary materials and prepare the demonstration.
 - b. Participants demonstrate the selected skill in the application of using proper forensic science techniques, and to respond to questions.
 - c. Participants clean the demonstration area and pack necessary supplies for the next competitors.

Tech Bowl

Who

3 members per team
Unlimited teams per chapter
16 teams will progress to the semifinals
based on their team's average test scores

Where

On-Site with a pre-conference test.

When

The testing window is open from the time the team's chapter registers for the Conference and closes at 5:00 PM on 1/14/2026.
The on-site portion is on March 4, 2026.

What

Participants demonstrate their knowledge of TSA and concepts addressed in technology content standards by completing an objective test. Semifinalists participate in a head-to-head, team competition.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Test	<input type="checkbox"/> Head-to-head challenge

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Pre-Conference Preliminary Round - The Test

MUSTS

1. The one (1)-hour test is administered to all members of the team at the same time.
2. Each member takes the test individually and simultaneously.
3. These same three (3) team members compete in the semifinal round of the event, should the team qualify.

CANNOTS

Members cannot consult each other on answers or use resources during the test.

OTHER CONSIDERATIONS

Each team's average test score is used to determine the semifinalist teams.

On-Site Semifinal Round - The head-to-head challenge

MUSTS

1. All three (3) members of a semifinalist team must be available to participate at the scheduled time for the oral competition portion of the event.
2. If a team or member is late for participation, that team forfeits and is eliminated from competition.
3. Teams may visit with other teams in the holding room.
4. Questions, to include the bonus question, may not be discussed by teams. Team members may only discuss the additional question.
5. The procedures for reading questions and “buzzing in” are as follows:
 - a. The team member who buzzes in to answer a question has five (5) seconds to answer the question without discussion.

- b. After a full question is read, competing teams have ten (10) seconds to answer without discussion. If neither team buzzes in, the reader moves to the next question.
 - c. If a team member buzzes in before a question is finished being read, the reader ceases reading and the team member must give the exact answer as printed with the question without discussion. If the answer is incorrect, the reader reads the entire question for the opposing team.
6. A team's score is derived from the total number of correct answers to the questions asked:
 - a. Twelve (12) questions and an additional question are asked per round; no questions are repeated in another round.
 - b. For questions 1-11, a correct answer gives the team ten (10) points, and an incorrect answer results in a loss of five (5) points.
 - c. The 12th question is the bonus question and is worth fifteen (15) points; there is no penalty for an incorrect answer.
 - d. If the bonus question is not answered correctly, participants are not given an additional question.
 - e. If a team answers the bonus question correctly, the team is given an additional question to answer. There is no penalty for an incorrect answer. The team may discuss this question. A correct answer for the additional question is worth five (5) points.
 - f. In case of a tie, three (3) additional questions are asked. This procedure continues until the tie is broken.

CANNOTS

1. No transmitting or recording devices are permitted to assist in answering a question in the event area.
2. No prompting is permitted.
3. Teams that leave the holding room before being called for competition are eliminated.
4. No advisors or visitors may enter the holding room once the semifinal round begins.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants take the test individually through the JudgePro system any time between when their chapter registers for the state conference and 5:00 PM on 1/14/26.
5. Participants follow the specific regulations and adhere to the directions provided by their proctor.
6. All team members must test at the same time but will take the exam individually.

On-Site Semifinal Round

7. Semifinalist team members (and their advisor, if available) report to the oral event area holding room at the time and place stated in the conference program.
8. After a short briefing, advisors leave and the teams remain in the holding room until they are called for competition.
9. Teams are paired using the semifinalist teams' bracket.
10. Each team will be listed on the bracket by their chapter ID.
11. When instructed to do so, two (2) teams enter the event area and are seated according to instructions.
12. Questions are drawn from a card file resource bank.
13. If equipment malfunctions, a question that is being considered at that time automatically is eliminated. If equipment malfunctions three (3) times, time is called by the event coordinator to set up back-up equipment. After equipment has been set up and tested, the event continues from the point where it stopped.
14. Once a team is eliminated, the team is out of the oral competition except for the round in which the third and fourth positions are determined.

TECH BOWL

2026 & 2027 OFFICIAL SCORE SHEET

MIDDLE SCHOOL

Competition Round ID# _____

Team # _____ (A) Team # _____ (B)

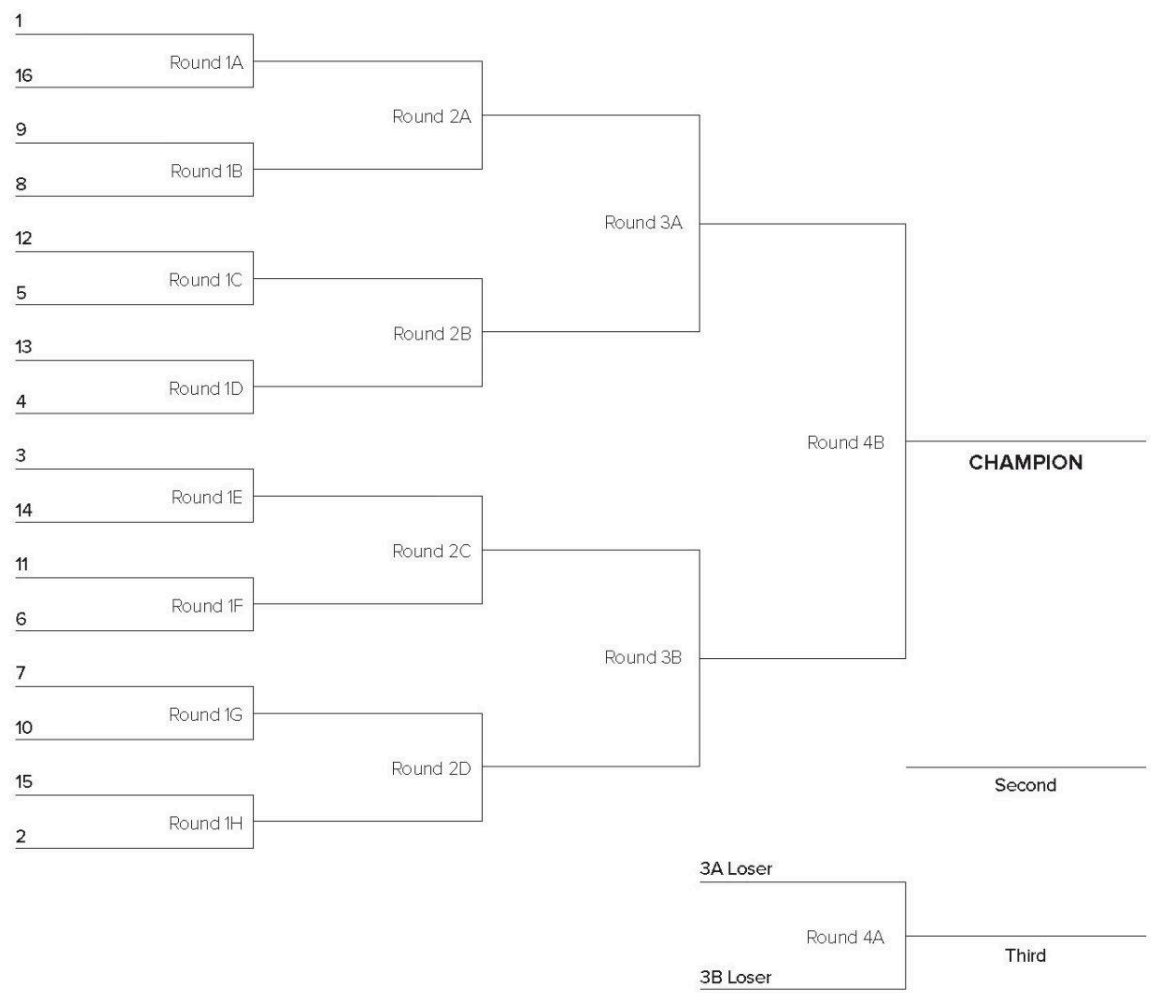
Scorekeeper's Signature _____

SEMIFINAL ROUND – ORAL COMPETITION		TEAM A	TEAM B
Mark an X in the box beside the team that gives the correct response to the question and an O beside the team that gives an incorrect response. Record the scores for each response in the column to the right.			
Question #	Points		
1.	+10 for correct, -5 for incorrect response		
2.	+10 for correct, -5 for incorrect response		
3.	+10 for correct, -5 for incorrect response		
4.	+10 for correct, -5 for incorrect response		
5.	+10 for correct, -5 for incorrect response		
6.	+10 for correct, -5 for incorrect response		
7.	+10 for correct, -5 for incorrect response		
8.	+10 for correct, -5 for incorrect response		
9.	+10 for correct, -5 for incorrect response		
10.	+10 for correct, -5 for incorrect response		
11.	+10 for correct, -5 for incorrect response		
12. Bonus question	+15 for answering the bonus question correctly; no penalty for answering the bonus question incorrectly		
Additional question	+5 for answering the additional question correctly; no penalty for answering the additional question incorrectly		
ORAL COMPETITION SUBTOTAL (130 points)			

Tie Breaker Questions			
1.	+10 for correct, -5 for incorrect response		
2.	+10 for correct, -5 for incorrect response		
3.	+10 for correct, -5 for incorrect response		
TIE BREAKER QUESTIONS SUBTOTAL (30 points)			

SEMIFINALIST TEAMS BRACKET

MIDDLE SCHOOL



Note to evaluators: This is a single elimination format (semifinalist teams ONLY). Seed is determined by team ranking on written test.			
Seed 1	Team #	Seed 9	Team #
Seed 2	Team #	Seed 10	Team #
Seed 3	Team #	Seed 11	Team #
Seed 4	Team #	Seed 12	Team #
Seed 5	Team #	Seed 13	Team #
Seed 6	Team #	Seed 14	Team #
Seed 7	Team #	Seed 15	Team #
Seed 8	Team #	Seed 16	Team #

On-Site Only Events



This page was
intentionally left
blank(ish).

Challenging Technology Issues

Who

2 members per team
2 teams per chapter

Where

On-Site

When

The [theme](#) was released on 8/15/2025.
The on-site portion is on March 4, 2026.

What

Following the onsite random selection of a technology topic from a group of pre-conference posted topics, participants work to prepare for and deliver a debate-style presentation, in which they explain opposing views of the selected topic.

Pre-Conference Preliminary Round	On-Site Semifinal Round
N/A	<input type="checkbox"/> Presentation

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Topics:

- Artificial Intelligence and Automation in the Workplace
- Cloning to Generate Human Organs
- Utilizing Lab-Grown Meat as a Substantive Agricultural Practice
- Banning Gas-Powered Cars by 2035
- Human Microchip Implants for Medical Records

On-Site Competition - The Presentation

MUSTS

1. Both members must report with their materials to the preparation room at the assigned time.
2. Materials:
 - a. Team members may bring non-electronic reference materials for use while in the preparation room.
 - b. No other form of assistance is allowed.
 - c. Participants must provide their own pencils or pens for this event.
 - d. Participants may provide note cards, if desired.
 - e. Note cards:
 - i. Note cards may be used during the presentation.
 - ii. The use of note cards may result in score deductions if they detract from the effectiveness of the presentation.

CANNOTS

1. AI cannot be used to generate any content whatsoever.
2. Teams may use first names ONLY; no other identifying information may be stated during their presentation.
3. Time is called at four (4) minutes, at which time the presentation must stop. No overtime speaking is allowed.

How

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Both members must report with their materials to the preparation room at the assigned time.
5. Topic selection for each round:
 - a. A member from each team will randomly select one of the annual topics.
 - b. After each selection, the topic will be returned to the pile and shuffled for the next team.
6. At the end of the fifteen (15)-minute preparation time, each team is escorted to the presentation room where the team presents opposing views of the selected issue.
7. One team member states the topic prior to the first speaker speaking in the presentation.
8. After stating the selected topic, the presentation time begins once a team member begins to speak.
9. Teams present opposing views of the selected issue in using the following suggested format to present opposing views:
(Similar to [this video](#), but without the cross-examination)
 - a. Introduction (pro) Introduction (con)
 - b. Position (pro) Position (con)
 - c. Conclusion (pro) Conclusion (con)
10. A timekeeper notifies a presenting team thirty (30) seconds before the end of the four (4)-minute time limit by holding up a “30-seconds remaining” card.

Dragster

Who

Unlimited number of members per chapter
16 teams will progress to the semifinals
based on their time trial performance

Where

On-Site

When

March 4, 2026

What

Participants design, draw, and construct a CO₂-powered dragster that adheres to the annual specifications, design and documentation requirements, and theme. Semifinalists participate in an interview and compete in a double-elimination race.

On-Site Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Time Trials	<input type="checkbox"/> Drawings <input type="checkbox"/> Bracket <input type="checkbox"/> Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

No theme for 2026; see official rules for specifications.

On-Site Semifinal Round - Time Trials & Safety Checks

MUSTS

1. Participants must check for a theme/problem on the TSA website under Themes & Problems.
2. See the next few pages for dragster specifications.

OTHER CONSIDERATIONS

Dragsters that do not meet all specifications/tolerances are disqualified and not permitted to progress to the semifinal round.

On-Site Semifinal Round - Dragster Construction & Drawing

MUSTS

Drawings:

1. The two (2)-view (top and side) drawing with metric dimensions is made on one piece of drawing paper no larger than 11" x 17" in size.
2. Drawings are developed using standard engineering practices and procedures.
3. The drawing may be produced using traditional drafting methods or CAD.
4. A one (1) letter sized page with the Materials List must be printed on or attached to the back of the technical drawing.
5. The title block includes only the participants identification number, which is assigned at registration time and is placed on the entry and drawing during check-in.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Participants prepare their documentation and dragster model according to regulations.

On-Site Preliminary Round

5. Participants check in the following at the time and place stated in the conference program:
 - a. The dragster
 - b. One (1) full-size metric drawing of the completed vehicle
 - c. One (1) letter-sized printed document listing all parts and materials
6. Entries are reviewed by judges to determine specification adherence and safety on the track.
7. Safe dragsters race for qualifying time on the same lane of a raceway.

On-Site Semifinal Round

8. The top sixteen (16) qualifying cars, based on time trials, are evaluated against the required specifications for this event.
9. Dragsters that do not meet event regulations are disqualified and lower qualifying cars are moved up until sixteen (16) dragsters meeting specifications are determined.
10. The top sixteen (16) car builders report at the time and location stated in the conference program to sign up for an interview.
11. The top sixteen (16) car builders report to the track at the posted time for a five (5)-minute interview.
12. The top sixteen (16) cars race in a double-elimination format to earn points for the race portion of the event.
13. The Race:
 - a. The official distance between the start line and the finish line on the race track is twenty (20) meters.
 - b. No repair or maintenance is allowed after the entries have been submitted.
 - c. In the event that the vehicle is damaged by conference personnel, the event coordinator rules as to whether or not the vehicle may be repaired by the student entering the vehicle. This is the only reason a student is allowed to touch his/her vehicle after registration.
 - d. All CO₂ cartridges for the race are provided by Arkansas TSA.
 - e. Cars that lose wheels, bearings, screw-eyes will not continue to race.
 - f. Damaged wheels may not be replaced.

Dragster body

	MINIMUM	MAXIMUM
1. The Dragster body must be one (1) piece of any species of wood or can be from plastics, including urethane modeling foam. It may be produced using traditional hand tools, power tool, CNC Milling and 3D printing, following applicable safety rules. a. Two (2) or more like or unlike pieces of material glued together are not considered one (1)-piece b. Any type of lamination will result in disqualification. c. No add-ons, such as body strengtheners, fenders, plastic canopy, exhausts, or air foils may be attached to or enclosed within the vehicle. Hydro dipping technique is permitted. d. Fiberglass, vinyl wrap, and shrink wrap are considered body strengtheners and cannot be used on the car body for any reason. e. Decals may be used for decoration only; they may not be used to gain an aerodynamic advantage, i.e., decals cannot cover the exterior axle holes or be used to cover open areas of the body.		
2. Body length * denotes specific school year requirement	*(2026) – 280mm *(2027) – 230mm	290mm 240mm
3. Body height with wheels		75mm
4. Body mass (completed car without CO ₂) * denotes specific school year requirement	*(2026) – 40g *(2027) – 55g	55g 65g
5. Body width at the point the axles pass through the body, front and back	35mm	42mm
6. Vehicle total width (including wheels).		90mm

Axles/axle holes/wheelbase

	MINIMUM	MAXIMUM
1. Dragsters must have two (2) axles per car, no more.		
2. Bottom of axle hole or bearing above bottom of car body. (NOTE: This will only be measured at the lowest point of the side surfaces of the wood car body at the axle hole.)	5mm	10mm
3. Axle hole from front and rear of car	10mm	100mm
4. Wheelbase (axle distance apart at farthest points)	105mm	Not specified
5. Bearings, bushings and lubricants may be used.		
6. Glue may only be used to secure bearings to body.		

Spacer washers/clips

	MINIMUM	MAXIMUM
1. Spacer washers		10
2. Axle clips		8
3. Silicone or any other type of glue/adhesive may not be used in place of wheel clips to hold wheels or axles in place.		

Power plant (CO₂ cartridge hole)

	MINIMUM	MAXIMUM
1. The power plant hole must be at the farthest point at the rear of the car and must be drilled parallel to the racing surface to assure proper puncture of the CO ₂ cartridge. a. A minimum of 5mm thickness around the entire power plant hole must be maintained on the dragster for safety. b. There should be no paint inside the CO ₂ cartridge hole.		
2. Hole depth	45mm	55mm
3. Safety zone thickness	5mm	
4. Chamber diameter	19mm	20mm
5. Lowest point of chamber diameter to race surface (with wheels)	26mm	40mm

Eye screws

	MINIMUM	MAXIMUM
1. Dragsters must have no more than two (2) eye screws per car that meet tolerances. a. Eye screws must not make contact with the racing surface. b. The track string must pass through both eye screws, which are located on the center line of the bottom of the car. c. Eye screws may be glued in place with CA glue or epoxy. d. It is the responsibility of the car designer/engineer to see that the eye screw holes are tightly closed to prevent the track string from slipping out. e. Any adjustments must be done prior to event check-in.		
2. Inside diameter	3mm	5mm
3. Distance apart (at farthest points)	150mm	Not Specified

Wheels

	MINIMUM	MAXIMUM
1. A dragster must have exactly four (4) wheels, each of which separately must meet regulations in items in 2 and 3 below. a. All four (4) wheels must touch the racing surface at the same time. b. All wheels must roll. c. Wheels must be made entirely from plastic. d. Dimensions must be consistent for the full circumference of the wheel.		
2. Wheel diameter	30mm	40mm
3. Wheel width* * Width is determined by the continuous point of contact between the wheel and track or flat surface.	2mm	18mm

Inventions and Innovations

Who

3-6 members per team
3 teams per chapter

Where

On-Site

When

March 4, 2026

What

Participants research a need - and brainstorm a solution - for an invention or innovation that can be produced using recycled materials. Participants document their work in an interactive display and create a model/prototype, then deliver a presentation about their work and participate in an interview.

Pre-Conference Preliminary Round	On-Site Semifinal Round
N/A	<input type="checkbox"/> Display <input type="checkbox"/> Model <input type="checkbox"/> Sales Pitch

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

On-Site Semifinal Round - The Display and Model/Prototype

MUSTS

1. The invention/innovation entry (of a device, system, or process) must be the result of an identified need.
2. Static display content:
 - a. Invention name
 - b. Description of the invention/innovation
 - c. Explanation of the necessity
 - d. Description of brainstorming process and how recycled items were utilized in the final product
 - e. Drawings or illustrations of the invention/innovation. If the entry contains images of people, proof of consent must be included on the back of the display. Images of minors require parental consent (see 2026 & 2027 Forms Appendix)
 - f. Process of building the model/prototype
3. If the display and/or model/prototype requires power, they must be powered by dry-cell batteries or photo-voltaic cells.
 - a. The power supply must physically fit within the display dimensions.
 - b. All power must be switched off once the team has completed set-up.
 - c. If teams want judges to activate any electronic device in their model/prototype/display, complete instructions must be provided to judges on how to power up the model/display.
4. The display must be presented as if it were in a product show case geared toward an audience of venture capitalists.
5. Model/Prototype:
 - a. The model/prototype must be placed with the display and not exceed the display size limits.
 - b. The model/prototype may be a scaled version of the invention/innovation idea.
 - c. The idea should be realistic and have the potential to be workable.
 - d. The following options may be used to provide direct current electrical power for the model/prototype when it is demonstrated during the semifinalist presentation. No other electrical source may be used.
 - i. Up to 4 “C” or “D” batteries, OR

- ii. Up to 8 “AA” or “AAA” batteries

CANNOTS

1. A/C electricity may not be used.
2. The size of the display (including the model/prototype) for the invention/innovation may not exceed 15" deep x 30" wide x 48" high.
3. Once the display set-up time frame has closed, participants may not re-enter the event area.
4. Violation of the following will result in disqualification:
 - a. No liquids, viruses, live plants, or animals may be used as part of the display.
 - b. No harmful or illegal substances may be displayed.

OTHER CONSIDERATIONS

Ten (10) minutes are allowed for the semifinal presentation and interview broken down as follows:

1. One (1) minute for set-up
2. Seven (7) minutes for the “sales pitch” presentation
3. Two (2) minutes to respond to questions from judges

How

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Participants concentrate their efforts in researching and identifying a need that has the potential for the invention/innovation of a device, system, or process.
5. Participants design a scaled model/prototype using a majority of recycled materials, which may be a conceptual model or a working model of a device, system, or process.
6. Participants document the design through the creation of a static display.
7. Participants prepare a “sales pitch” presentation that further explains the invention/innovation to a panel of judges acting as venture capitalists.
8. No more than two (2) team representatives report at the time and place stated in the conference program to check in:
 - a. The static display
 - b. The model/prototype
9. Two (2) to four (4) representatives from each team report at the time and place stated in the conference program for the “sales pitch” presentation/interview.
 - a. Using leadership and/or 21st century skills, the goal of the team is to convince the judges that the invention/innovation is needed and has real-world potential.
 - b. Representatives may reference their display and documentation during the presentation and interview.
 - c. Teams may bring and use audio/visual materials or a laptop for their presentation. AC power will not be provided or available. Projectors and screens are not permitted.
10. Time limits:
 - a. One (1) minute for set-up
 - b. Seven (7) minutes for “sales pitch” presentation
 - c. Two (2) minutes to respond to questions from judges
 - d. A five-(5) point deduction will be incurred for any time infraction.

Leadership Strategies

Who

3 members per team
5 teams per chapter

Where

On-Site

When

March 4, 2026

What

Participants prepare for and deliver a presentation about a specific challenge that officers of a TSA chapter might encounter. Semifinalists follow the same competition procedure but must respond to a different chapter challenge.

Pre-Conference Preliminary Round	On-Site Semifinal Round
N/A	<input type="checkbox"/> Presentation

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

On-Site Semifinal Round - The Presentation

MUSTS

1. Each presentation must be the result of the team’s own effort.
2. Each team must bring three (3) writing pens (one [1] per team member) to the preparation room.
3. No reference materials or devices may be brought to the preparation room.
4. Any notes for the presentation must be written during the fifteen (15)-minute preparation period.
 - a. Each team is provided a maximum of three (3) 3" x 5" blank notecards.
 - b. Although teams are permitted to use notes when speaking, it should be noted that deductions in scoring may be made for this practice if it detracts from the effectiveness of the presentation.
5. Each member of a team must participate in the presentation.

CANNOTS

1. Teams may not use their cell phones or any other electronic technology while in the preparation or presentation rooms.
2. No reference may be made concerning the name of the team, the team members, or their school.
3. Teams are penalized one (1) point per ten (10) seconds for speaking over five (5) minutes or under three (3) minutes.

OTHER CONSIDERATIONS

1. Presentations must be between three and five (3-5) minutes.
 - a. Teams will be penalized one (1) point per ten (10) seconds for speaking over five (5) minutes or under three (3) minutes.
 - b. Time commences when the first team member begins talking and concludes at the end of the presentation.
2. Topics that might be encountered by teams in this event may include but are not limited to:
 - a. A newly created school ruling does not allow for school related travel out of state. How will your chapter approach a solution to the problem?
 - b. A mandated curriculum severely limits opportunities for students to select and schedule elective courses such as technology education. What can be done to resolve this issue?

- c. Plans to upgrade athletic facilities within the school district severely limit previously approved plans to fund technology education with needed maintenance and equipment expenditures. What will you do in an attempt to resolve this dilemma?
 - d. A school policy that pertains to fundraising activity now requires such funds to become part of a general pool to be distributed at the discretion of the school administrator regardless of who or how they were raised. What will be your plan of action to reverse this decision?
 - e. Conflict exists within the local chapter related to members who are not engaged within their committee assignments. If the problems are not resolved, the health of the chapter will deteriorate. How do you plan to solve this problem?
 - f. It is assumed that our school's technology and engineering program will be strengthened through the support of local businesses and industries. Currently, there is little participation of these groups. How might we change this?
3. Participants are encouraged to rely on an outline format in presenting their plans, using short sentences and bullet points as appropriate.

How

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Participants report at the time and place stated in the conference program, five (5) minutes prior to the assigned presentation time with three (3) writing pens (one [1] per team member).
5. At the team's assigned time, one (1) team member draws three (3) cards – each containing one (1) topic – from a box and selects one (1) topic from the three (3) on which the team presents. The cards with the unused topics are returned to the box.
6. After selecting a topic, the first team enters a preparation room separate from the presentation room and is given fifteen (15) minutes to prepare the team presentation. Multiple teams may be in the preparation room together during the rotation period due to conference logistics.
7. As participants present, the timekeeper visually notifies the team when it has reached the three minutes minimum time by holding up a 5" x 7" notecard with "3:00" displayed.

Prepared Speech

Who

3 individuals per chapter

Where

On-Site

When

The [theme](#) was released on 8/15/2025.
The on-site portion is on 3/4/26.

What

Participants deliver a timed speech that relates to the theme of the current national TSA conference. Semifinalists and finalists are determined using the same competition procedure.

Pre-Conference Preliminary Round	On-Site Semifinal Round
N/A	<input type="checkbox"/> Speech

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Theme: 2026 National Conference Theme: “Unity Through Community”

On-Site Semifinal Round - The Speech

MUSTS

1. Each speech must be the result of the participant’s own efforts.
2. Information about technology and TSA is appropriate as long as it relates to the published theme.
3. TSA will provide a podium in the event room.
4. Participant scores are penalized one (1) point per ten (10)-second interval for speaking over or under the allotted time
5. Time commences when the speech begins.

CANNOTS

1. Participants are not permitted to use any type of props, computers, display boards, etc.
2. Costumes are not permitted.
3. Participants may not reveal their school, chapter name, or city, but the appearance of a state name on an official TSA badge is acceptable.

OTHER CONSIDERATIONS

Each speech should be no less than three (3) minutes and no more than five (5) minutes.

How

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Participants write and memorize a 3-5 minute speech.
5. Participants report to the event area at the time and place assigned to them.
6. The event coordinator introduces each student by identification number only and in the order of scheduled times.
7. Participants deliver their speech in the allotted time limit.



This page was
intentionally left
blank(ish).

Problem Solving

Who

2 members per team
6 teams per chapter

Where

On-Site

When

March 4, 2026

What

Participants use problem-solving skills to design and build a solution to an onsite challenge. Solutions are evaluated using measures appropriate to the challenge, such as elapsed time, horizontal or vertical distance, and/or strength.

Pre-Conference Preliminary Round	On-Site Semifinal Round
N/A	<input type="checkbox"/> On-Site Challenge

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

On-Site Semifinal Round - The Challenge

MUSTS

1. Specific materials related to the on-site problem will be provided by TSA.
2. Only the materials issued to each team by the event coordinator may be used in the development of the solution. Exceptions are adhesives (glue) and masking tape from each team’s toolbox.
3. Participants are required to provide their own tool box/container, which must:
 - a. Include identification (school name, address, and advisor cell phone number).
 - b. Not exceed twenty (20) inches (508 mm) length x ten (10) inches (254 mm) width x ten (10) inches (254 mm) height.
 - c. Contain all tools and materials needed to fabricate the solution. The following is a suggested list:
 - i. Cutting devices; NONE may be electric
 - ii. Adhesives:
 1. Aerosol and electric applicators are not allowed
 2. A bottle of Uncure or Debonder is recommended
 - iii. Temporary fastening devices
 1. Straight pins
 2. Clamps
 3. Tape (only masking tape may be used as a construction material of the final solution)
 - iv. A cutting surface that prevents table-top marring (required)
 - v. Rulers, straightedges, and/or measuring scales
 - vi. Marking devices (pens, pencils, etc.) and sharpener
 - vii. Sheet of wax paper, (up to 9 square feet)
 - viii. Pliers, wrenches, nut drivers, as needed
 - ix. Safety glasses and side shields, as required
 - x. One (1) roll masking tape no wider than 3/4"
4. Participants without a tool box will not be allowed to compete.

5. As teams enter the competition area, each will be given a copy of the Verifications Sheet. The Verifications Sheet is a list of tool box contents as listed above
6. Sharing tools between teams is not permitted.
7. Participants are required to provide and wear safety-approved eyewear for this event.
 - a. Safety eyewear shall be worn at event check-in.
 - b. Prescription eyewear will need to have side shields to be considered safety eyewear.
 - c. Should a team member remove his/her eyewear, he/she will be reminded once to replace it.
 - d. Sunglasses are not suitable eyewear.

OTHER CONSIDERATIONS

Ninety (90) minutes for the design and construction of the solution are permitted.

How

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Participants report to the event area at the time and place stated in the conference program with their team tool box and safety eye glasses.
5. The problem, the evaluation criteria, and the materials are distributed.
6. Each solution is tested as soon as possible after the construction phase is completed. Some problems may require teams to be present for testing.
 - a. Each team's solution is evaluated objectively.
 - b. A finite measure, such as elapsed time, horizontal or vertical distance, and/or strength, is used to determine the best solution.
 - c. Ties shall be broken according to the entry with the earlier testing time given the advantage

Robotics

Who

2-6 members per team
3 teams per chapter

Where

On-Site

When

The [theme](#) was released on 8/15/2025.
The on-site portion is on 3/4/26.

What

Participants design, build, document, and test a robot assembled using open-sourced parts according to stated specifications and to meet the challenge of the [yearly theme/problem](#).

Pre-Conference Preliminary Round	On-Site Semifinal Round
N/A	<input type="checkbox"/> Robot testing <input type="checkbox"/> Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

On-Site - Robot Specifications

MUSTS

1. The robot must be assembled from open-sourced parts. The robot can be purchased as a kit that can be built, reconfigured, changed, and modified with different components.
2. The robot structure can be made from plastic, metal, wood, 3D printed materials (carbon fiber, PLA plastic, ABS plastic, resin, metal combined plastic or resin). Parts can be purchased commercially and modified.
3. Battery packs must only be commercially available lithium-ion or lithium-ion polymer batteries that are purchased from open-sourced 3rd parties (i.e., Amazon, hobby shops, etc.).
4. The robot will have to navigate through a level course. Depending on the location the surface may change so designs must take that into consideration. Teams may choose to use legs, tracks, wheels, or other methods developed by the team.
5. At the start of the challenge robots must fit in a 16" x 16" x 16" cube. Once the challenge has begun the robot can exceed that size.
6. Robots must have removable part/coverings for internal inspection.
7. A camera may be incorporated into the design if needed to help complete the assigned task.

CANNOTS

Drones are not permitted in this event.

OTHER CONSIDERATIONS

VEX kits and pieces may be used but are not mandatory.

On-Site - Robotics Pit and Safety Procedures

1. Pit Area Assignment. The Event Coordinator will provide a designated area for robotics teams to work on and prepare their robots for the challenge.

- a. If the team brings any type of powered tool or soldering iron, the teams are required to bring two (2) welding blankets (4' x 6' minimum) to cover the table and floor in their pit area. In this case, failure to bring the two (2) welding blankets will result in an automatic disqualification.
 - b. Teams bring to pit area, for inspection, robot, radio controller(s), chargers, batteries, tools box, power strip, 3-prong electrical extension cord, replacement parts, spare parts, and tools.
 - c. All necessary computers and associated software for the competition.
 - d. All equipment, tools, chargers, and computers are to be arranged for inspection and safety check. The use of tools with combustible fuel sources is prohibited.
 - e. In the pit area, battery chargers and batteries, as they are being charged, must be placed on the fireproof welding blanket in the pit charging area.
2. When the Robot is out of the competition area, all batteries must be removed. NO EXCEPTIONS.
 3. When a team member enters the competition tent field, only at the direction of the event coordinator may the team members attach the battery cable and turn on their robot. When a robot is outside of the competition tent area, all batteries must be unplugged. NO EXCEPTIONS.
 4. The judge will inspect the robot to ensure safe operation.
 5. When the competition is taking place and when a practice session is under way with a robot in the competition area, all robots in the pit area or outside the pit area must be POWERED OFF. This is an automatic ten (10) point deduction if this occurs.
 6. All batteries will be inspected prior to practice and the competition.
 7. All robots must be driven ONLY in the Competition field.

How

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Participants prepare their design, build, and test their robots.
5. While wearing safety glasses and safety vests, participants attend a fifteen (15)-minute orientation meeting at the time and place stated in the conference program.
6. Students will arrive at the assigned place and time to:
 - a. Set up their pit areas
 - b. Set up their robot
7. Entries are reviewed by judges to determine safety.
8. Safe robots will be given an opportunity to test.
9. The on-site competition is timed as follows:
 - a. Ten (10) minutes prior to assigned times teams can set up their assigned pit area.
 - b. Thirty (30) minutes session to test and correct any problems. During this time judges will also perform a safety check.
 - c. Ten (10) minutes running clock to complete the challenge.
 - d. Ten (10) minutes for semifinalist interview

2026 MS Robotics

Overview

The mission of your team is to design, build, assemble, and operate a robot that can pick up objects (payloads) of varying types. Navigating through/around various obstacles to gather payloads. Then place payloads into a payload drop off area on a specific target. The course is designed to test the handling, maneuverability, hardware capabilities, and driving skills of your robot.

The event will consist of a check-in and inspection of the team members, robot, and all equipment associated with controlling the robot.

Robotics competitors are to engineer and build an open-source or commercially available robot. Different robots may have different capabilities, but to complete all required tasks, the robot should be able to easily pick up a variety of payloads and deliver them to the designated payload drop off area and place them on various targets.

Competitors are encouraged to research, design, produce, and test their robots to meet the challenges of the year.

The Mission

- Team/Driver Meeting: Thirty (30) minute maximum for all teams at the assigned time. At the end of the meeting the event will begin.
- Mission Time: Ten (10) minute running clock. Clock will be stopped when all payloads are dropped in the target areas or when the 10 minutes expire.
- There will be 10 possible payloads for the robot to recover and deliver to a target area.
- The course will be approximately 10' x 10', constructed from PVC pipes and fittings.
- Robots may carry only one payload at a time.
- Sets of payloads will each have their own set of obstacles—including overhead obstacles, uneven terrain, and navigation challenges. All payloads must be gathered from their specific course and obstacle areas (IE: robots cannot reach from one obstacle area over to another obstacle area)
- Drivers will control robots via FPV (first-person view) or visual (line of sight) control methods. A secondary driver may also use FPV (goggles, video screen, phone, etc.) or visual methods to complete payload handling tasks.
- Spotters may assist by communicating the robot's location and identifying visible targets.
- Payload Process: All robots will start from the launch area (16"x16"x16 Starting Garage), then choose a payload to acquire, collect the payload, and return to the drop area. Payloads must be placed in the appropriate drop zones to receive credit. Payloads will be organized by the event coordinator or judge. All competitors will have the payloads in the same starting locations.
- No outside devices may be used to hold, stand, or modify the provided payloads.
- The Judging Team will tally up successful drops to specified targets during the 10-minute time.

Overview / Procedures

- Robots must remain inside the competition area. No exceptions. Violations will result in automatic disqualification. Robots are deemed outside the competition area if they touch the ground outside of the PVC pipe perimeter.
- The event coordinator will assign pit areas for teams to prepare and work on their robots.
- Points will be scored based on payload drop completion and successful obstacle completion for each payload group.
- Robot operation will stop when 1) all payloads are completed or 2) 10 minutes have expired.
- Time will be recorded. In the case of a tie in points, the team with the faster time will be ranked higher.
- Course obstacles location and payload locations will be determined at the conference by the event coordinator. Layout will be viewed at the time of check-in for team planning.
- Targets within the payload drop off location will be determined at the conference by the event coordinator. Layout will be viewed at the time of check-in for team planning.

Regulations

1. All competitors must follow the safety guidelines and precautions of the event. Violations may result in a warning or disqualification, depending on severity.
2. All robotics competitors are required to wear safety glasses at minimum both in both the pit area and the competition area.
3. Upon entering the competition field, at the discretion of the event coordinator or other authorized personnel, a team may attach the battery and power on their robot.
4. When outside the competition area, all batteries must be unplugged from the robot. At the discretion of the event coordinator or other authorized personnel a team may attach the battery and power on their robot for testing.
5. Robots may only operate within the competition field or designated testing areas as determined by the event coordinator.
6. Robots must maintain physical contact with the competition field surface at all times. They may not become fully airborne, whether intentionally or unintentionally. Brief, incidental loss of contact (e.g., wheels lifting due to terrain) is allowed. Intentional jumping, flying, or hovering is prohibited.
7. Any payload that exits the field ("touches the ground outside the field perimeter) is no longer eligible and is considered "dead ", robots can continue to another payload.
8. Robots must only acquire the payload(s) from within the designated areas for that payload(s). Robots are not permitted to reach or travel over course area dividers to retrieve or return payloads.
9. Obstacles are not to be moved. If the robot intentionally displaces an obstacle by changing its position or orientation to gain an advantage, a 10-point penalty will be assessed. Judges will determine whether any affected payloads are still eligible. Note: For the forest obstacle. If any "trees" are knocked over from the forest base then a penalty of 2.5 points per tree is assessed. If the forest base is moved then a 10-point penalty is assessed.
10. Humans are not to interact with the robot during the match. If a member of the student drive team interacts with the robot a 5-point deduction will be assessed for each interaction. Also, the robot must be moved and reset in the launch area (16"x16"x16 Starting Garage)
11. Payloads are to be transported from the obstacle areas to the payload drop off area and then placed on specific targets. The targets in the payload drop off area are not be removed from the payload drop off area, but may be moved within the area.
12. Violations of any of the above regulations may result in disqualification as determined by judges/event coordinator.

Course Obstacles/Payloads/Targets:

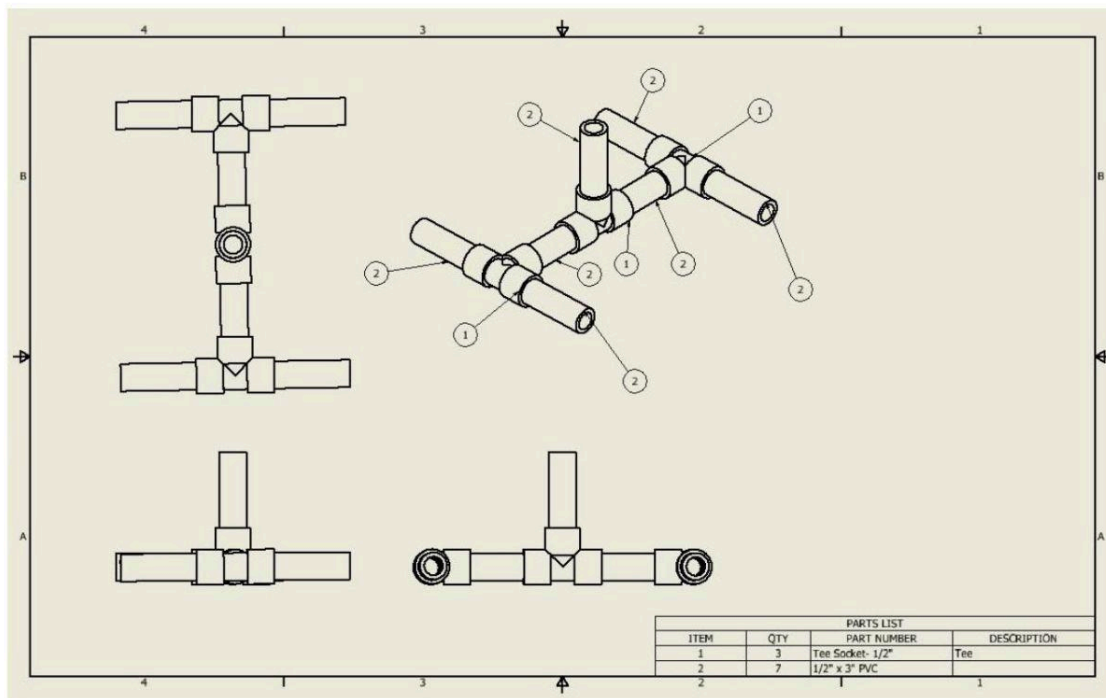
Payloads will be similar to those shown below; 2 of each for a total of 10 payloads.

- Wooden Eggs- [Here](#)
- Rings, Cones, and Bean Bags - [Here](#)
- Spring Toy - [Here](#)

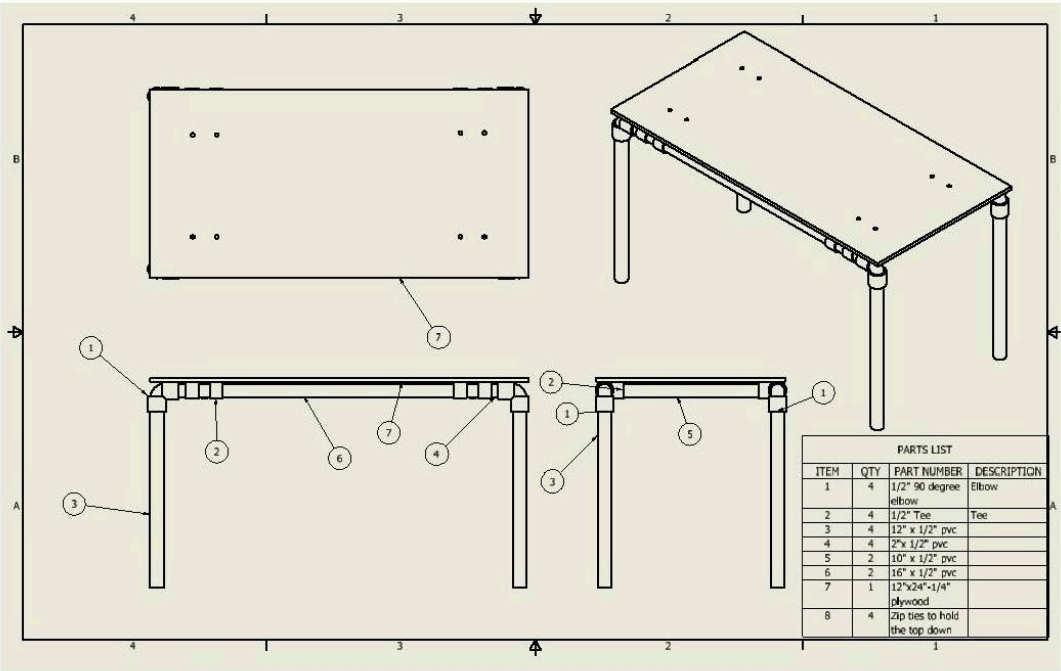
Targets - Ten (10) pts for each successful drop completely in the payload drop off area in the target below.

- Bean Bags will be placed in a [6-quart storage bin shoe box](#). The box will be open with no top/lid.
- Wooden Eggs will be placed in a cardboard dozen egg carton. The egg must be properly placed in a position for a singular egg. The top flap/lid of the egg carton will be removed.
- Rings will be placed on the center vertical pipe of the Ring Post stand shown below.
- Cones will be stacked on top of another cone (1 cones will be placed as a target in the payload drop off area, 2 other cones will be placed as payloads in an obstacle area).
- Spring toy must be placed inside 1 of 2 [3-inch PVC Couplings](#). There will be 2 couplings; spring toys must be placed individually into the couplings.

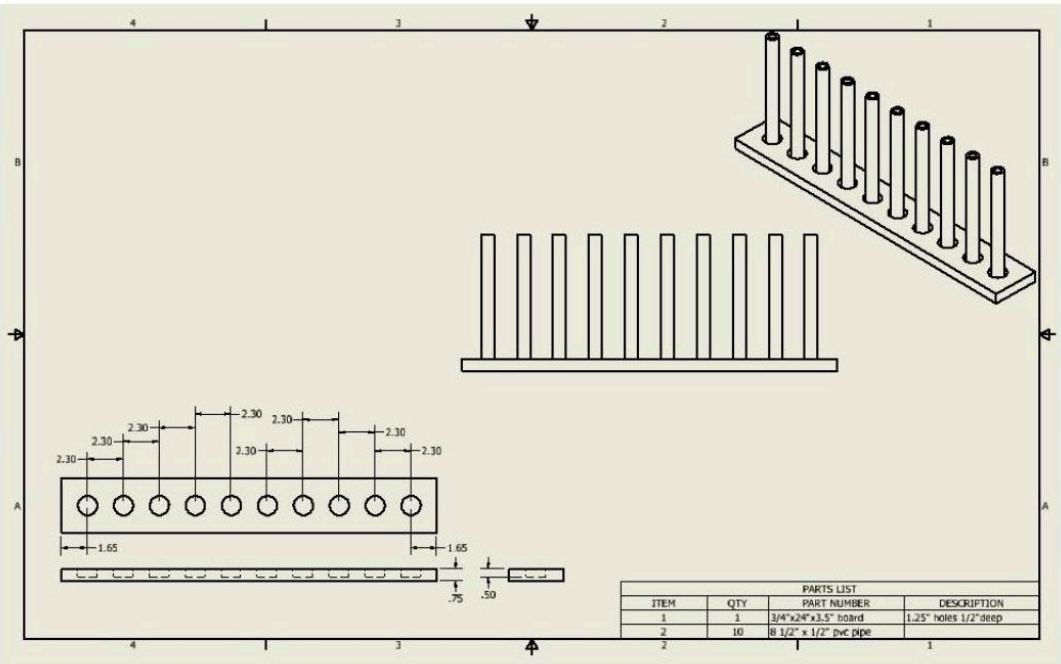
Ring Post Stand



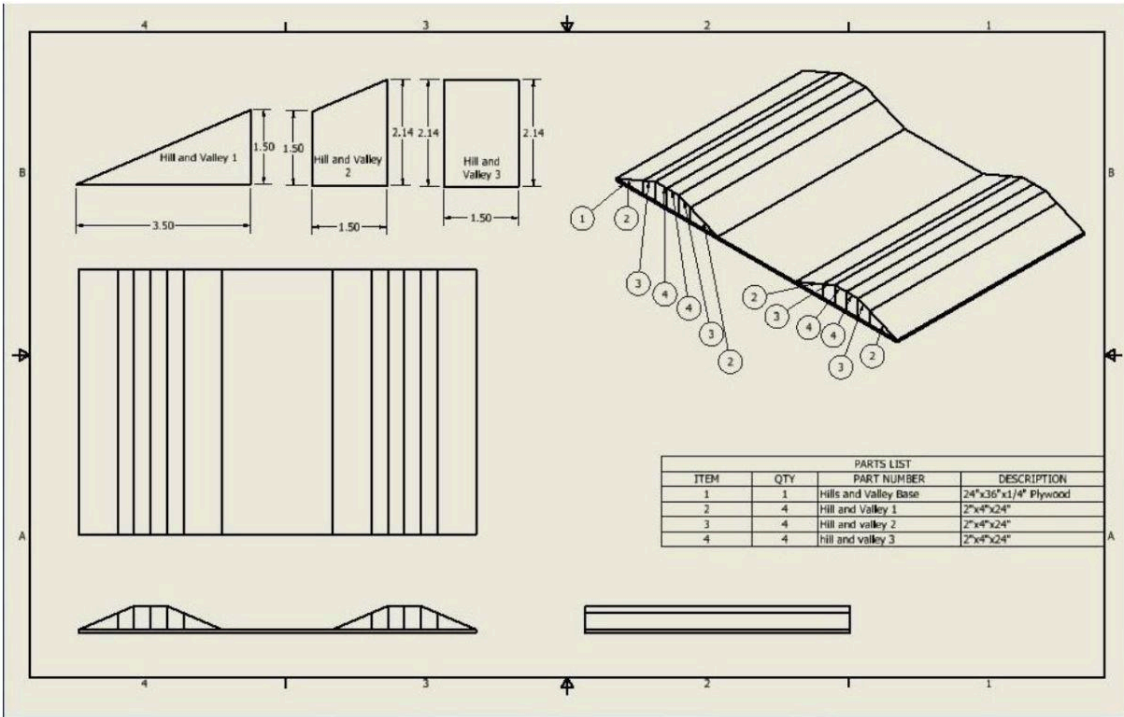
Obstacle 1 – The Shelf -made of ½" PVC Pipe and a piece of ¼" plywood



Obstacle 2– The Forest – 10 pieces of ½" x 8.5" long PVC pipes standing on end in a wooden holder (2.5pt deduction for each tree knocked over)

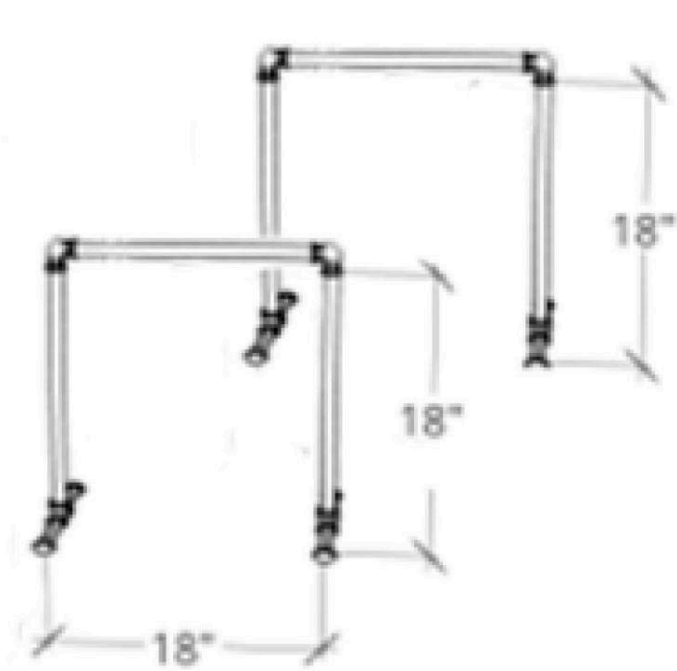


Obstacle 3 – Hills and Valleys- Made of wood mounted to a piece of $\frac{1}{4}$ " plywood. Alternatively, the hills may be 3d printed and placed on $\frac{1}{4}$ " plywood.



Obstacle 4- The Meadow- 24"x36" Turf Grass 1"-1.5" tall – similar to [here](#)

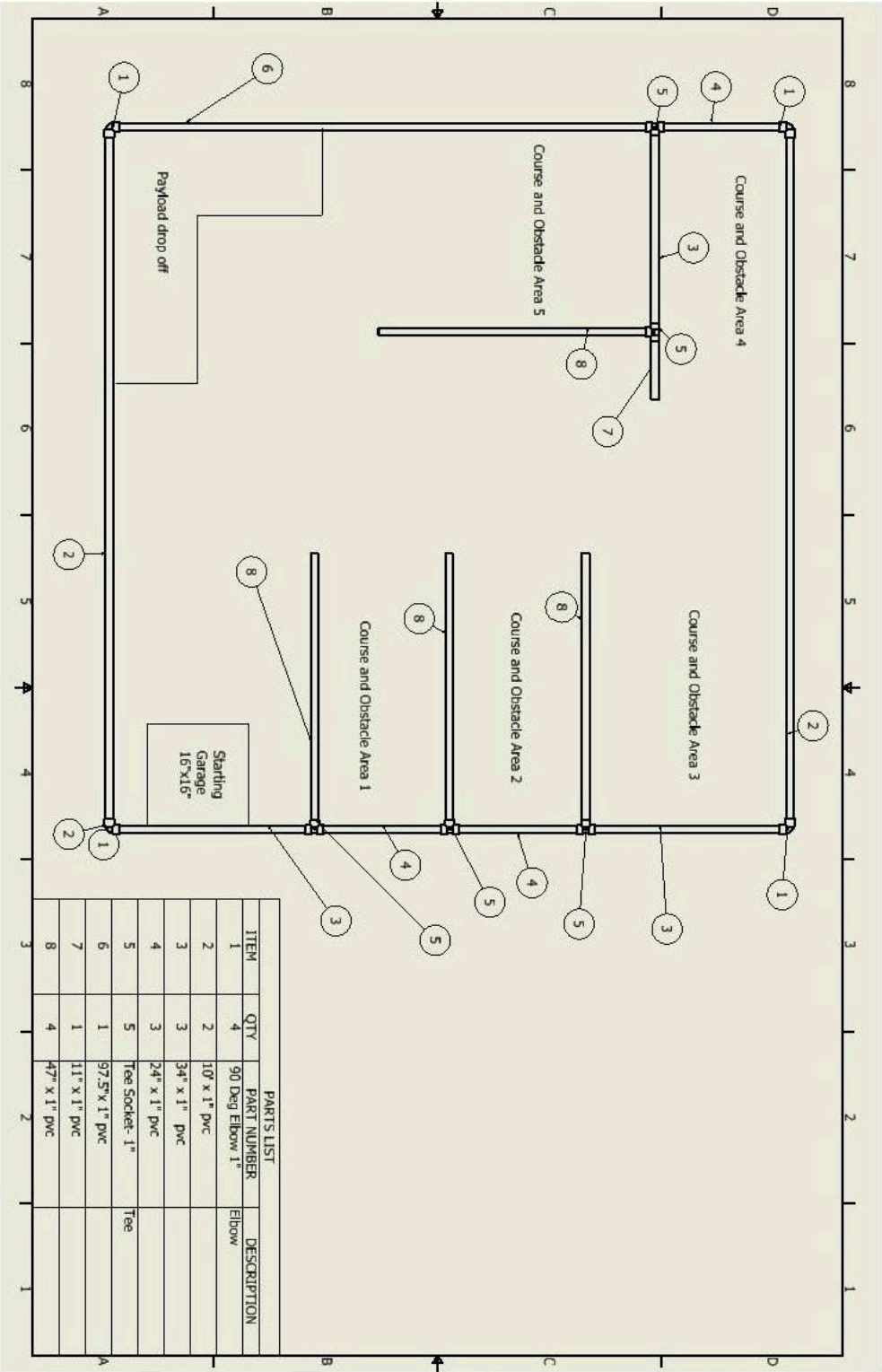
Obstacle 5- Hurdle- Made of $\frac{1}{2}$ " PVC, the robot must pass under to get to the payload.



Team Number				Time	
Payload Run		Successful		Run Total Points	
1	Wooden Eggs	1 2	X 10pts		
2	Cones	1 2	X 10pts		
3	Rings	1 2	X 10pts		
4	Spring Toy	1 2	X 10pts		
5	Bean Bags	1 2	X 10pts		
Deductions				Total Points	/100
Trees knocked over		#	X 2.5 pts		
Times Robot goes out of obstacle boundaries		#	X 10 pts		
Times Obstacles are displaced, or orientation are changed. (other than trees)		#	X 10 pts		
Times Human interacts with robot while it is on course.		#	X 5 pts		
				Total Deduction	-
Final Total Points					/100

Competition Field

General location of starting garage and payload drop off area may be taped to the floor to allow students/judges to see areas.





This page was
intentionally left
blank(ish).

Solar Racer

Who

2-4 members per team
3 teams per chapter

Where

On-Site

When

March 4, 2026

What

Participants apply STEM concepts, creativity, teamwork, and problem-solving skills to design, construct, and race a solar-powered model car. Documentation of the process is required.

On-Site Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Time Trial Results <input type="checkbox"/> Showcase display and model	<input type="checkbox"/> Semifinalist Interview <input type="checkbox"/> Head-to-head race results

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

On-Site Preliminary Round - The Showcase Display

MUSTS

The showcase display must include the following components:

1. Car name (the name cannot identify the school or chapter).
2. Engineering Design Process. Each step clearly identified. Design process description, including pre-testing notes of various configurations of the model and revision notes about the model design throughout the process.
3. Design drawings:
 - a. The drawings must show the model with a minimum of two (2) views.
 - b. The drawings must be developed using standard engineering practices and procedures (including measurements/dimensions).
 - c. The drawings may be produced using traditional drafting methods or CAD.
4. Components list (see Supplied Components List worksheet).
5. Run Log (see Run Log form) with times using solar power or battery power on a 20-meter track. The minimum number of runs is five (5).
6. QR code with a link to three (3) videos of your car using solely solar power to travel 20 meters. Must show that batteries are not in place for the three (3) runs. The maximum length of each video is ninety (90) seconds. The judges should be able to scan the QR code with a smartphone. Viewing cannot require any downloads or require any permissions.

CANNOTS

1. The size of the showcase display (including the solar car model) may not exceed 15" deep x 30" wide x 48" high.
2. AI cannot be used to generate any content whatsoever.

On-Site Preliminary Round - The Solar-Powered Model Car

MUSTS

1. The materials used to construct the model car must cost less than \$50. The \$50 does not include the cost of the panel.
2. Original receipts for all materials purchased must be recorded in the Supplied Components List.
3. If using recycled materials, documentation must show how these items were obtained.
4. Recycled materials are not included in the \$50 maximum.
5. The vehicle must be structurally sound without the solar panel attached.

OTHER CONSIDERATIONS

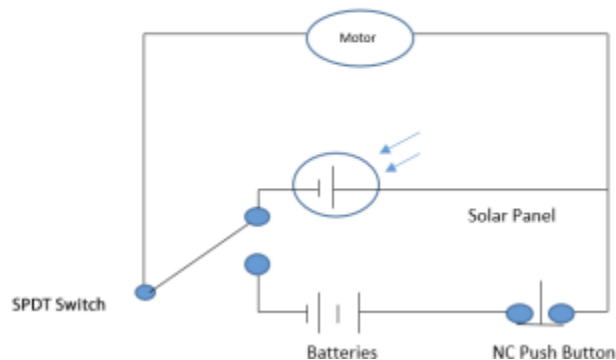
Model cars that exceed the \$50 construction cost limit will be disqualified from the competition.

On-Site Preliminary Round - Solar Paneling

MUSTS

1. One (1) solar panel (limited to a maximum output of 3.2 W), and one (1) motor (limited to a maximum 3.0 VDC) are allowed per car
2. Only the motor supplied in the kit can be used.
3. Reflectors, supports, and power leads can be added to these components as needed, but they must fit within the required dimensions.
4. Each vehicle must include a mounted battery holder that is capable of holding two AA batteries. This system needs a switch and button as illustrated. This is to be used at the starting line as follows:
 - a. on the "READY" command the button is depressed and held, this opens the circuit.
 - b. on the "SET" command the switch is flipped, to connect the batteries to the motor.
 - c. on the "GO" command the button is released, thereby closing the circuit, sending power to the motor, causing the vehicle to move.
5. The team is encouraged to decorate the body of the car, but a clearly visible 3cm square space must be available on the car to display the team ID#.
6. All onsite racing will be completed indoors using two (2) provided AA batteries.

Wiring Diagram



7. A student-designed attachment device must be part of the car to accommodate the easy attachment and removal from a guide wire for steering. A purchased screw eye or eye bolt is not considered a student designed attachment device.
 - a. A guide wire, such as fishing line, will be no more than 1.5 cm (5/8") from the surface of the track.
 - b. The wire will go through the attachment device on the car and serve as a steering mechanism to keep the car in its lane. This must be done without disconnecting the guide wire.
 - c. Both ends of the guide wire will be fixed to the track. This is the only allowable method of steering the car.
 - d. No radio control is permitted in the car.
 - e. Lane changing or lane crossing will result in a Did Not Finish (DNF) standing.
 - f. A car's race that is impacted by an out-of-control vehicle will be allowed an opportunity to run the race again.
 - g. A car that lacks steering control and interferes with other cars in other lanes will not be allowed to race again.

8. If a car is deemed unsafe, it will not be allowed to run in the time trials or the semifinalist races.
9. If the model is safe, but does not meet the required specifications, it will be allowed to run in the time trials but not the semifinalist races.
10. The remainder of the vehicle can be innovative in design and materials.

CANNOTS

1. Solar panels cannot be shaved, drilled, or delaminated.
2. Motors cannot be re-wound or disassembled.
3. The solar panel cannot be used as the chassis, or body, of the car.
4. The axles and wheels cannot be directly attached to the solar panel.
5. The model car must not exceed the following dimensions with the solar panel attached:
 - a. 60 cm (23 5/8 inches) length
 - b. 30 cm (11 13/16 inches) width
 - c. 30 cm (11 3/4 inches) height (as measured from the surface the car is resting upon to the highest point of the car, with all its components attached)

OTHER CONSIDERATIONS

If an evaluation group convened by the event coordinator determines that the solar panel and/or motor have been modified, the car and team will be disqualified from the competition.

On-Site Preliminary Round - Time Trials

MUSTS

1. The race lane will be 30cm wide and 20m long.
2. The track will be a hard flat surface indoors such as convention center concrete. The floor surface for the national TSA conference will be posted on the TSA website under Themes & Problems.
3. All on-site racing will be conducted using provided batteries however your solar panel must still be in place.
4. The time trial/race specifications are as follows:
 - a. Tables will be set up for teams to make adjustments and minor repairs to cars prior to each time trial and the semifinalist heats.
 - i. Teams that are “next up” to be timed or raced are given priority to use the tables.
 - ii. Teams must supply their own tools.
 - b. Prior to semifinals, teams will have an opportunity to perform up to two (2) trial races during a practice run session.
 - c. At race time, each car will be placed with the most forward part of the vehicle set even with the starting line and all of its wheels in contact with the ground.
 - d. No more than two (2) team representatives will be allowed in the race area; one at the starting line, one to catch.
 - e. All cars will be started when the official signal is given.
 - i. Each car will have up to two (2) time trials, unless otherwise determined by the event coordinator.
 - ii. The fastest time recorded will determine the twenty four (24) cars to race in the head-to-head single elimination tournament and display judging portion.
 - iii. If, for any reason, a car is not able to participate in the time trials, or race at its scheduled time, it may be disqualified.
 - f. The judges will note the official time for each time trial.
 - i. At the time designated, if a car does not start the time trial, OR if during the time trial it does not finish, it will be noted as a Did Not Finish (DNF).
 - ii. If a car has a false start, the entry will be given one (1) more opportunity to race.
 - g. One (1) team member must wait at the finish line to catch the vehicle for each timed trial. Team members are responsible for finding someone to catch their vehicle if another team member is unavailable.
 - h. After each timed trial or race, the vehicle and team member must remain at the finish line until the time is recorded for the vehicle.
 - i. Challenges must be made before the next timed trial or race begins.

- i. Any challenges must come from team members who are actively competing, not the coach/advisor, parent, or coordinator.
 - ii. Any challenges need to be directed to the lead judge.
 - iii. The decisions of the judges regarding challenges are final.
- j. Only competing students and race officials may be in the race area.
 - i. Spectators, including coaches/advisors, parents, coordinators, and non-competing students, must remain in the designated spectator area throughout the duration of races.
 - ii. Teams will be disqualified if a spectator, including a coach/advisor or parent, interferes with a race. This includes a coach/advisor or parent helping team members get their car on/off the guide wire.
- k. Judges may inspect cars at any time before, during, and after timed trials or semifinalist races.
- l. Any additional rules, regulations, or guidelines established by the event coordinator must be followed.

CANNOTS

1. Time trials and semifinalist races will not be delayed to permit adjustments or repairs to cars. If a repair is needed during time trials, a three (3)-minute time limit for repairs will be permitted.
2. No one, including team members and spectators, may accompany or touch the vehicle on the track during a timed trial or semifinalist race.
 - a. Vehicles stalled on the track can be retrieved after the end of the trial or the race has been declared by the lead judge.
 - b. A violation of this rule will result in disqualification of the offending team.

On-Site Semifinal Round - Head-to-Head Race

MUSTS

1. A team representative will report at the time and location printed in the conference program for an interview time.
2. A minimum of two (2) team members must be present for the interview.
3. Participants will participate in a five (5) minute interview to answer questions related to solar power and the manufacturing process of the solar car model.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Participants design and create their solar-powered car while working within the required specifications.
5. Participants prepare and record their design processes on a showcase display that includes their solar car model.
6. The chapter will create a car name (the name cannot identify the school or chapter). The car name will be incorporated into the theme of the showcase display.
7. The team will create video evidence of the solution using solar power, but the preliminary round will take place indoors during the conference.

On-Site Preliminary Round

8. Participants report to the time and place stated in the conference program and check in:
 - a. A solar-powered model car
 - b. The showcase display
9. Entries are reviewed by judges to determine specification adherence and safety on the track.
10. Solutions that are disqualified for any reason will not be permitted to participate in time trials or the preliminary round head-to-head races.
11. All models meeting safety and performance criteria will be given up to two (2) time trials.
12. During the preliminary round, the fastest times from the time trials will determine the top sixteen (16) teams. A list of the sixteen (16) teams is posted on-site.

On-Site Semifinal Round

13. Judges score the top sixteen (16) showcase displays and models. The top sixteen (16) teams will complete a single elimination head-to-head race bracket to score points.
14. The semifinalist interview must include a minimum of two (2) team members.
15. Five (5) minutes are allowed for the semifinal interview.
16. The combined score of the showcase display, model, head-to-head bracket, and the interview will determine the finalists.
17. All teams will report at the time and location printed in the conference program to pick up the entries.

SUPPLIED COMPONENTS LIST

[illegible]

RUN LOG

RACE CAR NAME:			
Race #	Time	Battery or Solar	Notes
#1			
#2			
#3			
#4			
#5			
#6			
#7			
#8			
#9			
#10			

HEAD-TO-HEAD BRACKET

Tournament Bracket Seeded 24 Team Field





This page was
intentionally left
blank(ish).

System Control Technology

Who

3 members per team
3 teams per chapter

Where

On-Site

When

March 4, 2026

What

In response to a challenge presented onsite at the conference, participants analyze a problem (typically one in an industrial setting), build and program a computer-controlled mechanical model to solve the problem, explain the program and the features of the mechanical model solution, and provide instructions for evaluators to operate the device.

Pre-Conference Preliminary Round	On-Site Semifinal Round
N/A	<input type="checkbox"/> On-Site Challenge <input type="checkbox"/> Inventor's Log <input type="checkbox"/> Model solution <input type="checkbox"/> Programming structure and efficiency <input type="checkbox"/> Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor's Affiliation Portal](#).

On-Site Challenge

MUSTS

1. Participants provide their own laptop computer with hardware and software systems. All equipment must be labeled with the team's identification number, advisor name, and advisor contact information.
2. Access to AC power will be provided. One electrical outlet per team. Each team should bring a power strip.
3. Each team provides pencils and scrap paper along with its own materials kit, which must be appropriate to build a system that can identify, secure, and move objects and that has light and/or sound outputs.
4. A problem will be developed by the coordinator based upon the assumption that every materials kit will contain at least:
 - a. Two (2) optical sensors
 - b. Two (2) touch sensors
 - c. Two (2) motors
 - d. Two (2) audio and two (2) light outputs
 - e. Gears, wheels, and axles appropriate to build a motorized vehicle and/or conveyor belt
 - f. Balls, blocks, and pegs that can be used as objects to be moved and manipulated
 - g. Velcro, tape, clamps, and other materials to secure or move the above objects (balls, blocks, and pegs)
5. Programs must be written completely on-site.

CANNOTS

1. No reference materials or building cards are allowed.

2. No cutting devices may be used during the on-site challenge; materials must retain the original form in which they were brought to the competition.
3. Power tools may not be used.
4. Use or modification of any programs written prior to the competition result in disqualification.

OTHER CONSIDERATIONS

1. Timeline:
 - a. Thirty (30) minutes for set up (team captain)
 - b. Fifteen (15) minutes for analysis (team)
 - c. Two and a half (2 ½) hours for problem solution (team)
 - d. All students participate in an interview at the conclusion of the programming
2. The following definitions are an integral part of the event regulations:
 - a. Repeatability – the device is programmed to reset automatically.
 - b. Functional control – the device must accomplish the task in an efficient manner and be user friendly.
 - c. Model-solution – the physical device must simulate the realistic processes used in the industry.
 - d. Conservation of materials – the model reflects the best use of materials to solve the problem, without being overbuilt.
3. An example of a problem for this event is provided below to help students understand and interpret a typical issue common to business and industry that might be used at a national TSA conference.

Johnson Recycling Center needs an automatic system for separating its two primary types of recycling material products. If type A material is detected in the product, the system should move the product to the right side of a sorting line. If type B material is detected on the assembly line, the product should be delivered to the left side. Whenever a product is delivered, a light or buzzer should activate for 10 seconds to alert workers that a product is available on one or the other of the sorting lines. The system should then reset to separate and deliver a new product. Design a prototype that can automatically deliver at least four products without any user intervention, then reset.

How

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

SYSTEM CONTROL TECHNOLOGY INVENTOR'S LOG

Participant/Team ID# _____

Use only the space provided. This section must be completed DURING the process of problem analysis.

1. Description or interpretation of the given problem:

The two parts below must be completed AFTER the problem analysis session.

2. Description of the team solution (explain the unique features of the program and model):

3. Directions to evaluators to start the system:



This page was
intentionally left
blank(ish).

Pre-Submission Events

All uploads due January 14, 2026 at 11:59 pm

Documentation Format Guidelines

See this document for documentation formatting guidelines: [Documentation Guide](#) . Make a copy of it and type your work into it without changing the format.

File Naming Conventions

For Team Events:

Event Abbreviation_Chapter ID Number_Team Number

- Example*: *ADHS_2992_3.pdf*

Note: First 4 digits are the Chapter ID Number. In the example above ADHS_2992-3 the ADHS is the event (Architectural Design); 2992 is the school; and the 3 is the team number (team number 3). If you are unsure about your chapter ID and team number for the contest you are in, see your advisor.

For Individual Events:

Event Abbreviation_Membership ID Number (ask your advisor for your number)

- Example: *CADEHS_2992299.pdf*

Events with Pre-Submissions and Their Abbreviations

Event name	Abbreviation	Event name	Abbreviation	Event name	Abbreviation
Biotechnology	BIOMS	Digital Photography	DPMS	Off the Grid	OTGMS
Career Prep	CAPMS	Drone Challenge (UAV)	DRCMS	Pin Design	PNDMS
Children's Stories	CSMS	Mass Production	MPMS	Promotional Marketing	PMMS
Community Service Video	CSVMS	Mechanical Engineering	MEMS	STEM Animation	SAMS
Construction Challenge	CONCMS	Medical Technology	MTMS	Video Game Design	VGDMs
Data Science & Analytics	DSAMS	Microcontroller Design	MDMS	Website Design	WEBMS

For Students

Prepare your [Documentation Portfolio](#) as a single, multi-page PDF document and upload it at

<https://judgepro.registtermchapter.com/org/jpar-tsastate/conf/jpar-tsastate/student>. Entries that require a software download or a request that access be granted will be disqualified. The PDF document is limited to a file size of 30mb or less. If your contest requires entering a URL, the URL must point directly to your team's entry. Unlisted YouTube videos are a great way to share videos and audio files.

For Advisors

You must select the "Export Judges System Student Submission Information" button from your state conference registration to access Membership IDs and contest passwords. (<https://www.registtermchapter.com/tsa/ar>). You may also elect to upload files and URLs on behalf of students at <https://judgepro.registtermchapter.com/org/jpar-tsastate/conf/jpar-tsastate>. Your log-in is the same as you used to register for the state conference.



This page was
intentionally left
blank(ish).

Biotechnology

Who

3-6 members per team
4 teams per chapter
12 teams will progress to the semifinals
based on their documentation portfolio
score.

Where

On-Site with a pre-conference
submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the
JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

To address the annual theme, participants select a contemporary biotechnology issue and demonstrate understanding of the topic through their documented research and an original display. Semifinalists participate in a presentation and interview.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio Upload	<input type="checkbox"/> Display <input type="checkbox"/> Presentation & Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Theme: Students research and report on biotechnology that develops biofuels as an alternative to fossil fuels, helping to reduce pollution and combat climate change.

Pre-Conference Preliminary Round - The Portfolio

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

- ☐ Title page with the event title, the conference city and state, the year, and the team/chapter ID number; one (1) page
- ☐ Table of contents; pages as needed
- ☐ Definition and explanation of the issue as it relates to the theme; one (1) page
- ☐ Research base: an explanation of the importance of the issue in contemporary biotechnology today, including possible solutions; maximum three (3) pages
- ☐ Support materials such as logs, graphs, sketches, drawings, illustrations, photos, etc.; maximum four (4) pages
- ☐ [Work Log](#); pages as needed
- ☐ A list of references and credible sources; a minimum of three (3) different types of references must be used; pages as needed
- ☐ Work must be original or cited, using a professional citation style of the competitors choosing. Failure to use a professional citation style will result in a rules violation of 20% (twenty percent). Some examples of professional citation styles include MLA, APA, Chicago, and IEEE; pages as needed
- ☐ [Photo/Film/Video Consent and Release forms](#). If the entry contains images of people (minors require parental consent), proof of consent must be included for each person; pages as needed

CANNOTS

AI cannot be used to generate any content whatsoever.

OTHER CONSIDERATIONS

Students must understand the fundamental concepts and principles of the contemporary biotechnology issue they research. Research about the issue should focus on significant impacts (opportunities and risks) on the environment, economy, and society, as well as any important ethical considerations.

On-Site Semifinal Round - The Display

MUSTS

1. If the display requires power, they must be powered by dry-cell batteries or photo-voltaic cells.
 - a. The power supply must physically fit within the display dimensions.
 - b. All power must be switched off once the team has completed set-up.
 - c. If teams want judges to activate any electronic device in their display, complete instructions must be provided to judges on how to power up the display.
2. If operating instructions are necessary, they must be clearly displayed and should include information about turning on devices, logging in, etc.

CANNOTS

1. AI cannot be used to generate any content whatsoever.
2. The size of the display may not exceed 15" deep x 30" wide x 48" high.
3. A/C electricity may not be used.
4. No liquids, viruses, live plants, or animals may be used as a part of the display.
5. No harmful or illegal substances may be displayed.

On-Site Semifinal Round - The Presentation & Interview

OTHER CONSIDERATIONS

1. The presentation is limited to three (3) team representatives. Each member should be an active participant in the presentation.
2. Representatives should reference their display and documentation during the presentation and interview.
3. Teams may bring and use audio/visual materials or a laptop for their presentation. Projectors and screens are not permitted. Access to power will not be provided.
4. Time limits:
 - a. One (1) minute for set-up
 - b. Seven (7) minutes for presentation
 - c. Two (2) minutes to respond to questions from judges.
 - d. A five-(5) point deduction will be incurred for any time infraction.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants research the issue using credible sources.
5. Participants prepare their documentation portfolio and turn it in [via JudgePro by the pre-conference deadline](#).

On-Site Semifinal Round

Semi-finalists prepare their display and presentation for the on-site semifinal round.

Career Prep

Who

6 individuals per chapter
12 teams will progress to the semifinals
based on their documentation portfolio
score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the
JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Based on the annual theme, participants conduct research on a technology-related career, prepare a letter of introduction to a potential employer, and develop a job-specific resume. Semifinalists participate in a mock job interview.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Cover Letter & Resume	<input type="checkbox"/> Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Theme: Choose a career from the Career Clusters Energy & Natural Resources category within one of the following subclusters:

- Resource Extraction
- Conservation & Land Management
- Ecological Research & Development
- Clean & Alternative Energy
- Environmental Protection
- Utilities

Pre-Conference Preliminary Round - The Cover Letter & Job-Specific Resume

MUSTS

1. All components of the competitor’s entry (PDF) must be finished, submitted, and accessible via the Internet by the pre-conference submission deadline. Entries received, or changes made to submitted entries after this deadline will be disqualified.
2. Participants should use fictitious home address and telephone number information when completing the documents, however, correct participant names must be used.
3. Each participant submits a PDF of (no cover page, table of contents, or release forms):
 - a. Cover letter:
 - i. Must be typed
 - ii. Is limited to one (1) single-sided, 8½" x 11" page
 - iii. Must include an opening, body, and conclusion
 - iv. Headshots or photos are not permissible.
 - b. The job-specific resume:
 - i. Must be typed
 - ii. Is limited to two (2) single-sided, 8½" x 11" pages
 - iii. Headshots or photos are not permissible.

CANNOTS

AI cannot be used to generate any content whatsoever.

OTHER CONSIDERATIONS

Participants enter this event with the following scenario in mind:

1. You have graduated from high school and have the appropriate level of education and training (i.e., college degree, technical school, certification and training, etc.) for an entry-level position that is required for successful employment in your selected career.
2. Your training, education, and other qualifications for the entry-level position are realistic for successful employment in your chosen career and are reflected in your resume and cover letter.

On-Site Semifinal Round - The Mock Interview

OTHER CONSIDERATIONS

Ten (10) minutes is allowed for the mock interview.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants concentrate their efforts conducting research on the selected technology-related career.
5. Participants prepare a cover letter and a job-specific resume and turn it in via JudgePro by the pre-conference deadline.

On-Site Semifinal Round

1. Semifinalists prepare their display and presentation for the on-site semifinal round.
2. Semifinalists report at the assigned time and place to participate in the mock interview.
3. Simulating a real interview, semifinalists bring with them an additional printed copy of their job-specific resume to the judges at the time of the interview.
4. The printed copy of the job-specific resume provided to the judges during the interview will not be returned.
5. Judges evaluate the interviews.

Children's Stories

Who

1-6 members per team
3 teams per chapter
9 teams will progress to the semifinals
based on their documentation portfolio
score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the
JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Participants create an illustrated children's story based on the annual theme. The entry product is a physical storybook of artistic, instructional, and social value. Semifinalists read their story aloud and participate in an interview.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio	<input type="checkbox"/> Storybook <input type="checkbox"/> Reading & Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Theme: Rhyming or Repetitive Text used to develop language development and memory in early readers.

Pre-Conference Preliminary Round - The Documentation Portfolio

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

- ☐ Title page with the title of the story, the event title, the conference city and state, the year, the team/individual chapter ID number, and the word count (number of words comprising the story's narrative); one (1) page
- ☐ Table of contents; pages as needed
- ☐ Purpose of story; one (1) page, to include:
 - ☐ Story's intent
 - ☐ Summary of storyline and theme
 - ☐ Intended audience (age, gender, demographics, and special disabilities, if any)
 - ☐ Word count – Number of words comprising the story's narrative
- ☐ Photographic verification of book construction and binding; pages as needed
- ☐ Field Tests Summary. A “field test” is a reading of the storybook to a group of children in the intended target age range; pages as needed
 - ☐ A minimum of two (2) field tests must be conducted.
 - ☐ Participants must document each field test with a summary paragraph that details the outcomes and findings.
 - ☐ Each summary paragraph must include the date, time, and location of the field test.
 - ☐ Each “field test” must be signed off by the chapter advisor.
- ☐ Research summary: A written summary of the research, writing strategies, problems encountered, and solutions developed in the writing and illustrating of the story; one (1) page.

- ☐ Project summary: A written summary of the research into the creation of storybooks similar to the annual design challenge (e.g., paper folding, interactive features in books). The summary must include the process and challenges the team encountered and the solutions developed in overcoming them; one (1) page.
- ☐ A list of tools, software (if any), and techniques used in the creation of the physical storybook and illustrations; pages as needed.
- ☐ References/research sources; one (1) page.
- ☐ [Work Log](#); pages as needed
- ☐ [Photo/Film/Video Consent and Release forms](#). If the entry contains images of people (minors require parental consent), proof of consent must be included for each person; pages as needed

CANNOTS

AI cannot be used to generate any content whatsoever.

On-Site Semifinal Round - The Physical Storybook

MUSTS

1. Participants design and create an entirely original storybook, complete with narrative and illustrations to meet the annual design challenge.
2. The physical storybook should be of high quality, designed to meet the age group for which it is intended. For the purposes of this event, children are defined as those twelve (12) years or younger.
3. Together with the storybook, the narrative and accompanying illustrations should result in an experience that delights, enlightens, and contributes to the wholesome development of a child.
4. There is no limit on the number of inside pages (may be one or two-sided).
5. The team must determine which format best presents the team's narrative and illustrations.
6. There must be a minimum of seven (7) illustrations that enhance the story and deepen the child's understanding and enjoyment of the reading experience.
 - a. An illustration on the book's cover may count as one (1) of the required seven (7) illustrations. The team may use the cover illustration within the story as well
 - b. All illustrations **MUST** be original, freehand, and/or computer-generated drawings made by the team member(s).
 - c. All computer-generated work **MUST** be developed from primitive lines and shapes and be the sole work of the team members.
7. The physical storybook must be the original work of the team members.
8. The book must be designed, engineered, created, and bound together by the team; no professional binding is allowed.
9. Photographic verification of the book construction process must be included in the portfolio.
10. The story must be no more than fifteen hundred (1500) words.
 - a. There will be a five (5)-point deduction for every hundred (100) words over the fifteen hundred (1500) word limit.
 - b. Stories containing two thousand (2000) or more words will be disqualified.
 - c. There is no minimum number of words required.
 - d. The word count (number of words comprising the story's narrative) must be listed on the inside of the front cover of the book.

CANNOTS

1. AI cannot be used to generate any content whatsoever.
2. The physical storybook must not exceed 12" x 12" when closed.
3. The storybook and narrative with accompanying illustrations should take no more than ten (10) minutes to read and view.
4. Physical or computer templates, previously existing drawings, characters, backgrounds, etc., are **NOT PERMITTED**.
5. Copyrighted material is **NOT PERMITTED**.
6. If narrative or illustrations appear in the story and they are not authored by one of the team members, the team will be disqualified.
7. The book must be designed, engineered, created, and bound together solely by the team; no professional binding is allowed.

OTHER CONSIDERATIONS

1. The storybook may include the name of the author(s) and illustrator(s) on the cover. This inclusion of the name of the author(s) and illustrator(s) is an exception to the General Rules.
2. Publishing rights remain with the authors and illustrators.

On-Site Semifinal Round - The Reading & Interview

MUSTS

1. No more than two (2) representatives report at the assigned time and place for the interview.
2. Both representatives participate in the interview process. The interview process lasts up to five (5) minutes.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants concentrate their efforts in researching, writing, and illustrating children's books and literature, as well as the creation of storybooks similar to the annual design challenge (e.g., pop-ups, interactive books, etc.).
5. Participants develop and construct a high-quality children's storybook with illustrations.
6. Participants record the design process in a documentation portfolio.
7. Participants "field test" their storybook and document outcomes and findings.

On-Site Semifinal Round

1. No more than two (2) representatives of the semifinalist team report at the assigned time and place for the interview.
2. One or both representatives read the story to the judges as if the judges were a testing audience.
3. Both representatives participate in the interview process. The interview process lasts up to five (5) minutes.



This page was
intentionally left
blank(ish).

Community Service Video

Who

1-6 members per team
3 teams per chapter
12 teams will progress to the semifinals based on their documentation portfolio score.

Where

On-Site with a pre-conference submission.

When

All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Participants create a video that depicts the local TSA chapter's involvement in a community service project. Semifinalists deliver a presentation on the project and participate in an interview.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio <input type="checkbox"/> Video	<input type="checkbox"/> Presentation & Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Pre-Conference Preliminary Round - The Video

MUSTS

1. The year must be clearly illustrated at the beginning of the video.
2. All video footage, graphics, special effects, and audio clips must be originally created/filmed by the participants. The source for any graphics, music, or sounds not created by the members must be properly cited on the references/resources page of the documentation portfolio.

CANNOTS

1. AI cannot be used to generate any content whatsoever.
2. The video cannot exceed duration of more than two (2) minutes.
3. A deduction of five (5) points will be applied to videos exceeding the time limit.

OTHER CONSIDERATIONS

1. There is no minimum length restriction.
2. The video will be timed from the first sound or picture to the final sound or picture.
3. This entry is exempt from General Rule D.9., which states that a chapter name must not appear in an entry.

Pre-Conference Preliminary Round - The Documentation Portfolio

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

- ☐ Title page with the event title, conference city and state, the year, and the team/chapter ID number; one (1) page
- ☐ Table of contents; pages as needed

- ☐ Community Service Project Overview – introduce the topic/subject, detail the chapter's involvement in the project, describe why the chapter selected the project, and describe how the chapter/recipients benefited; one (1) page
- ☐ References/Resources; pages as needed
- ☐ Completed [Student Copyright Checklist](#); one (1) page
- ☐ [Work Log](#); pages as needed
- ☐ [Photo/Film/Video Consent and Release forms](#). If the entry contains images of people (minors require parental consent), proof of consent must be included for each person; pages as needed

CANNOTS: AI cannot be used to generate any content whatsoever.

On-Site Semifinal Round - The Presentation & Interview

MUSTS

1. The semifinalist team or individual reports to the event area for the presentation/interview.
2. Following the presentation, semifinalist teams will have a chance to answer questions about their entry, specifically about the community service project and the video's design and development process.

OTHER CONSIDERATIONS

Ten (10) minutes are allowed for the semifinal presentation and interview broken down as follows:

1. Seven (7) minutes for the presentation
2. Three (3) minutes to respond to questions from judges

How

Overall

1. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
2. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

3. Teams identify a community service project.
4. Teams prepare a video observing the requirements set forth in this document.
5. Participants may choose to submit their entry electronically via a HYPERLINK to the designated submission file as an UNLISTED YouTube URL of the video, or a shareable link in cloud storage. The video must be located online and accessible for evaluation.
6. The URL must point directly to the participant's entry. Entries that require a software download or request that access be granted will not be judged.
7. Entries received, or changes made to submitted entries after the deadline will not be judged.

On-Site Semifinal Round

8. The semifinalist team or individual reports to the event area for the presentation/interview.
9. Following the presentation, semifinalist teams will have a chance to answer questions about their entry, specifically about the community service project and the video's design and development process.
10. Ten (10) minutes are allowed for the semifinal presentation and interview broken down as follows:
 - a. Seven (7) minutes for the presentation
 - b. Three (3) minutes to respond to questions from judges

Construction Challenge

Who

2-6 members per team
3 teams per chapter
12 teams will progress to the semifinals based on their documentation portfolio score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Participants submit a scale model, display, and documentation portfolio for a design idea and plan for their construction solution based on the annual theme. Semifinalists deliver a presentation about their entry and participate in an interview.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio	<input type="checkbox"/> Model <input type="checkbox"/> Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Theme: Your team has been tasked to design a playground appropriate for elementary school students (kindergarten through fifth grade). The playground should accommodate 50-60 students and be American Disabilities Act (ADA) compliant. The playground should have a minimum of three (3) distinct zones for students. Describe the materials your team will use and how they complement the local environment of the playground.

[Pre-Conference Preliminary Round - The Documentation Portfolio](#)

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

- ☐ Title page with the event title, the conference city and state, the year, and the team/chapter ID number; one (1) page
- ☐ Table of contents; pages as needed
- ☐ A design brief describing your team’s proposal for addressing the theme's construction project. Your design brief should include:
 - ☐ Your inspiration, proposed solution, and highlight any major features or elements of the project; maximum two (2) pages.
 - ☐ Sketches and initial design ideas for the construction project; pages as needed.
 - ☐ A description of why major materials were selected for the project; one (1) page.
 - ☐ A list of materials to be used in the construction of the proposed solution; maximum two (2) pages.
 - ☐ A set of drawings outlined in your proposed design for the construction project; pages as needed
 - ☐ A description of the regulations or design standards being utilized for the project and how they impacted the design and construction; maximum two (2) pages.
- ☐ Work Log (see 2026 & 2027 Forms Appendix); pages as needed

- ☐ References must follow a professional citation style of the competitors choosing. Failure to use a professional citation style will result in a rules violation of 20% (twenty percent). Some examples of professional citation styles include MLA, APA, Chicago, and IEEE; pages as needed.
- ☐ Photo/Film/Video Consent and Release Forms. If the entry contains images of people (minors require parental consent), proof of consent must be included for each person (see 2026 & 2027 Forms Appendix); pages as needed

CANNOTS

AI cannot be used to generate any content whatsoever.

OTHER CONSIDERATIONS

Identifying information must not be placed on the scale model/prototype, display, or in the portfolio for the purpose of revealing the TSA chapter, however, the entry is excluded from General Rule D.9, and the chapter name or other identifying information may appear in the entry documentation portfolio but only in media clippings, photographs, etc.

On-Site Semifinal Round - The Model/Prototype

MUSTS

1. The materials that make up the scale model/prototype must be student-constructed and assembled.
2. If the display and/or model/prototype requires power, they must be powered by dry-cell batteries or photo-voltaic cells.
 - a. The power supply must physically fit within the display dimensions.
 - b. All power must be switched off once the team has completed set-up.
 - c. If teams want judges to activate any electronic device in their model/prototype/display, complete instructions must be provided to judges on how to power up the model/display.
3. If operating instructions are necessary, they must be clearly displayed and should include information about turning on devices, logging in, etc.

CANNOTS

1. AI cannot be used to generate any content whatsoever.
2. The display cannot occupy a space more than 15" deep x 30" wide x 48" high.
3. A/C electricity may not be used.

On-Site Semifinal Round - Interview

MUSTS

Two to four (2-4) representatives are allowed a maximum of ten (10) minutes to present and respond to interview questions.

OTHER CONSIDERATIONS

Ten (10) minutes are allowed for the semifinal presentation and interview broken down as follows:

1. Seven (7) minutes for the presentation
2. Three (3) minutes to respond to questions from judges

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. The team's design and construction plan to address the annual theme must be completed during the current school year.
5. Participants create a scale model/prototype, display, and documentation portfolio while observing the regulations.

On-Site Semifinal Round

6. Semifinalists present their project and answer questions.

Data Science & Analytics

Who

2-3 members per team
3 teams per chapter
10 teams will progress to the semifinals based on their documentation portfolio score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Participants conduct research on the annual topic and analyze the provided data set, document their research in a supporting portfolio, and create a display. Semifinalist teams participate in an onsite presentation highlighting their pre-conference submission.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio	<input type="checkbox"/> Display <input type="checkbox"/> Presentation & Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Data Set – [Transportation Details](#)

Topic: Using data from the U.S. Census Bureau’s American Community Survey

(<https://www.census.gov/topics/employment/commuting.html>), explore how people travel to work across the country. Look at key characteristics provided in the data set. Based on your analysis, create a set of data-driven criteria that could help predict how someone might commute to work. Support your criteria with evidence from the data.

[Pre-Conference Preliminary Round - The Documentation Portfolio](#)

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

- ☐ Title page that includes the event title, the conference city and state, the year, and the team/chapter ID number; one (1) page
- ☐ Table of contents; pages as needed
- ☐ Supporting materials; maximum ten (10) pages
- ☐ A summary of the issue, one (1) page
- ☐ Analysis of the provided data; pages as needed
- ☐ A summary of findings and recommendation, one (1) page
- ☐ A list of software used, references, and credible resources; a minimum of three (3) different types of resources must be used; pages as needed
- ☐ [Work Log](#); pages as needed
- ☐ [Photo/Film/Video Consent and Release forms](#). If the entry contains images of people (minors require parental consent), proof of consent must be included for each person; pages as needed

CANNOTS

AI cannot be used to generate any content whatsoever.

OTHER CONSIDERATIONS

Participants must understand the fundamental concepts and principles of the contemporary issue researched. Research about the issue shall focus on:

1. Analysis of the provided data.
2. Representation of that data in statistical graphs.
3. Synthesis of the provided data in terms of factors influencing the issue, societal impacts, and ethical considerations.

On-Site Semifinal Round - The Display

MUSTS

1. The display shall include, at a minimum, the following major key points:
 - a. The team identification number and the event name in the upper-right hand corner of the display. No other identifying information shall be included.
 - b. The definition and explanation of the issue.
 - c. An explanation of the importance of the issue including problems, impact, and possible solutions or recommendations (if applicable).
 - d. Emphasis shall be placed on the graphs, which should depict not only the issue, but any causal factors.
2. Participants may highlight their display with creative visual elements (e.g., photos, titles) to actively engage the audience. Participants may use images "labeled for reuse," but must properly cite the source(s) on the display (refer to the General Rules).
3. If the entry contains images of people, proof of consent must be provided for each person in the presentation.
 - a. Minors require parental consent
 - b. Use the [Photo/Film/Video Consent and Release forms](#) for any individuals included in the presentation.
 - c. Participants must attach the consent forms within the documentation portfolio
4. If the display requires power, it must be powered by dry-cell batteries or photo-voltaic cells.
5. Any power source used must fit within the display dimensions.

CANNOTS

1. No commercial or copyrighted material may be used.
2. AI Cannot be used for any portion of the display, including image generation.
3. May be three-dimensional as long as it does not exceed the size limitations of 15" deep x 30" wide x 48" high.
4. A/C electricity may not be used.
5. No liquids, viruses, live plants, or animals may be used as a part of the display.
6. No harmful or illegal substances may be displayed.

OTHER CONSIDERATIONS

Any digital display (e.g. iPad) must fit within the allotted display space. All power must be switched off once the team has completed set-up. If teams want judges to activate any electronic device in their display, complete instructions must be clearly displayed and should include information about turning on devices, logging in, etc.

On-Site Semifinal Round - The Presentation & Interview

CANNOTS

Participants are NOT permitted to:

1. Use their phones during the presentation or the interview.
2. Contact outside sources for assistance.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.

3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants prepare their documentation portfolio and turn it in [via JudgePro by the pre-conference deadline](#).

On-Site Semifinal Round

5. Semifinalist teams report at the assigned time and place stated in the conference program for the on-site presentation/interview.



This page was
intentionally left
blank(ish).

Digital Photography

Who

5 individuals per chapter
15 individuals will progress to the semifinals based on their digital photographic portfolio score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Participants produce and submit a digital photographic portfolio that relates to the annual theme. Semifinalists participate in an onsite photographic challenge.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio	<input type="checkbox"/> On-Site Challenge <input type="checkbox"/> Multimedia Presentation <input type="checkbox"/> Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Theme: “Reflections”: Members will take four photos that fit the theme of “reflections,” such as water, mirrors, glass, etc.

Pre-Conference Preliminary Round - Portfolio

MUSTS

1. Photographs included in the portfolio must be unified.
2. Participants are solely responsible for all aspects of the competition, including taking the photographs, editing, and completing the portfolio.
3. The digital photographic portfolio must be submitted as a multi-page PDF document with pages in this order:
 - a. Cover page – must include the event title, the conference city and state, the year, and the participant’s ID number; one (1) page.
 - b. Summary of the theme – must follow the annual challenge, including a detailed description of how the theme was interpreted by the participant, why the particular subjects were chosen, as well as the challenges that were faced in the selection of the subjects, in taking the photos, and in selecting and editing the final images; pages as needed.
 - c. Photos:
 - i. Submission: the original photo and the edited version should appear together on the same page and must be labeled “ORIGINAL” and “EDITED.” The description must NOT be on the page with the original and edited photos.
 - ii. On the page immediately following the Original and Edited photos should be a description of the two photos. The description should include the photo's meta data (camera make/model, f/stop, exposure time, ISO speed, focal length) and include a synopsis of how the original photo was edited/changed, and how the theme is addressed by both the style and content of the edited photo.
 - iii. Enhancements and/or editing should be done ethically and in a way that makes a better photograph.

- iv. The order of the photos in the portfolio should be as follows: Original photo and edited photo on the same page, description on the following page, then repeat for the remaining photos.
 - d. Resource page – must include a list of resources used to complete the portfolio, including camera, software, hardware, etc.; pages as needed
 - e. [Photo/Film/Video Consent and Release forms](#). If the entry contains images of people (minors require parental consent), proof of consent must be included for each person. All necessary consent forms must be included at the end of the multi page PDF album. Students may note in their photo description when a consent form has been deemed necessary and is included in the portfolio; pages as needed (if needed). NOTE: If consent forms are deemed necessary by the judges and have not been included by the competitor, the entry will not be judged.
- 4. The entry must be finished, submitted, and accessible via the Internet by 11:59 p.m. ET on 1/14/26.
 - 5. Entries received, or changes made to submitted entries after this deadline will not be judged.

CANNOTS

AI cannot be used to generate any content whatsoever.

On-Site Semifinal Round - The Multimedia Presentation & Interview

MUSTS

- 1. Participants are required to provide their own equipment, including:
 - a. One (1) laptop. Laptop must be fully charged with enough battery for the duration of the semifinal round
 - b. One (1) computer mouse (if desired)
 - c. Portable power bank (if desired)
 - d. A method to transfer the images to the computer (such as a media reader) for editing
 - e. Tripod
 - f. DSLR or dedicated “point-and shoot” camera, with a timer feature and/or remote trigger as well as the ability to be mounted to a tripod; cell phones are permitted as cameras
 - g. Semifinalists may bring optional related accessories (i.e., filters, reflectors, extra batteries, etc.) to use in the on-site challenge.
- 2. When preparing their multimedia presentation, semifinalists must include the following information for each photograph:
 - a. Camera make (e.g., Nikon, Canon, Panasonic, Sony, etc.)
 - b. Camera model (e.g., CoolPix, Rebel, 5D, etc.)
 - c. F-stop at which each photograph was taken
 - d. Exposure time of each photograph
 - e. ISO value, aperture (f-stop number), and shutter speed
 - f. How the photo relates to the on-site challenge
 - g. Any software or apps used to edit the photograph
- 3. All multimedia presentations of images must be saved to the laptop and will be used by the member and the judges during the presentation/interview.

CANNOTS

- 1. Participants do NOT have access to electrical power/outlets during the event.
- 2. No internet access will be provided during the competition.

OTHER CONSIDERATIONS

The presentation/interview will be five (5) minutes with two (2) minutes for the presentation and three (3) minutes for the interview.

How

Overall

- 1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
- 2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.

3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants produce a digital photographic portfolio while observing the regulations.
5. Participants submit the digital photographic portfolio PDF by 11:59 p.m. ET on 1/14/26.

On-Site Semifinal Round

6. Participants report at the time and place stated in the conference program for the on-site challenge with all of the required equipment and software noted in the above section.
7. Participants are allowed one-half (½) hour to set up and test their equipment.
8. At the end of the set-up time, the event coordinator presents the on-site challenge and related procedure to the semifinalists.
9. The challenge involves students taking photographs addressing a specific theme, or documenting a current aspect of the conference, such as a competitive event, a special focus of the site, a general session, etc.
10. Semifinalists are given two (2) hours to complete the challenge, including taking their pictures, and editing or enhancing them. Editing must take place in the event room.
11. The semifinalists save the final photos in a multimedia presentation on their laptop.
12. Members can power down the laptop once finished and then power back up at the presentation/interview to save battery life.
13. The laptop with the semifinal solution must remain in the room for judging and the presentation/interview.
14. The participant signs up for a presentation/interview time once the two (2) hours has concluded.
15. Participants report at the assigned time and place stated in the conference program for the presentation/interview.



This page was
intentionally left
blank(ish).

Drone Challenge (UAV)

Who

2 members per team
3 teams per chapter
9 teams will progress to the semifinals based on their documentation portfolio score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Teams study the principles of flight and research the use of drones to address an annual theme. They demonstrate their knowledge of drones in manual flight missions and create a documentation portfolio. Semifinalists participate in an onsite interview.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio	<input type="checkbox"/> Drone testing <input type="checkbox"/> Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

See next pages for 2026 Theme.

Pre-Conference Preliminary Round - The Documentation Portfolio

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

- ☐ Title page with the event title, the conference city and state, the year; and the team identification number; one (1) page
- ☐ Table of Contents; one (1) page
- ☐ Explanation of the problem(s); one (1) page
- ☐ Communication of solution(s) - illustrating and explaining up to three (3) ways drones may be used related to the given theme; maximum three (3) pages
- ☐ Resources/Bibliography; pages as needed
- ☐ [Work Log](#); pages as needed

CANNOTS

AI cannot be used to generate any content whatsoever.

On-Site Semifinal Round - UAV Drone Specifications

MUSTS

1. Propeller guards/cage may be used if, once attached, the overall drone size does not exceed the dimensions listed above.
2. A gamepad controller or smartphone/tablet may be used for manual flight.

CANNOTS

1. With all components attached, drone must not exceed the following dimensions:
 - a. 9" width (at the furthest point)

- b. 9" length (at the furthest point)
 - c. 5" height (as measured from the surface the drone is resting upon to the highest point of the drone with all its components attached)
2. Drone weight (with all components attached) must not exceed 3.5oz (100g).
3. First Person View (FPV) Goggles are not allowed.

OTHER CONSIDERATIONS

Drones can be purchased commercially or built by the team members. Drones must be RC controlled or use a student-provided Wi-Fi hotspot. Arkansas TSA will not provide wi-fi.

On-Site Semifinal Round - Manual Flight Overview

1. Participants must wear safety glasses and safety vests at all times during the event (including check-in, submission, and orientation meeting).
2. Participants choose which missions to complete manually to score the most points.
3. Various points will be assigned for each mission accomplished.
4. Missions do not need to be navigated in any specific order.
5. The manual flight attempt lasts one (1) minute and the timer never pauses.
6. Participants will be given up to three (3) attempts to achieve their best score by completing the flight missions.
7. Each member of the team must complete at least one (1) attempt as the pilot.
8. The lowest scoring flight attempt will be dropped. The top two (2) manual flight attempts will be added together to determine the total flight score.

On-Site Semifinal Round - Drone Flight Rules

The manual flight attempt specifications are as follows:

1. Only one (1) team will be allowed in the competition area.
2. A hot table will be set up for teams to power up the drone and connect to the Drone Control System.
 - a. Only a team that is next to fly should be at the hot table.
 - b. Teams may have spare parts (e.g., propellers, batteries) available, but must supply their own parts.
3. During an attempt, one (1) team member will serve as the pilot and one (1) team member will serve as the spotter.
4. At flight time, the drone will be placed on the launch pad inside the protective netting and then both members must be outside of the protective netting prior to the start and/or power to the propellers.
 - a. Power cannot be applied to the propellers until the attempt begins.
 - b. The attempt will begin with a countdown ("3, 2, 1, GO") by the timekeeper. At that time, the drone must take off.
 - c. The drone must be in contact with the launch pad when the word "go" is announced. Takeoff before the official start will result in a score of 0 for the attempt.
5. During the attempt, the following applies:
 - a. If the drone unintentionally stops during the attempt and no power is applied to the drone propellers, the spotter may enter the airspace, pick up the drone, and move it to the launch pad to continue the attempt.
 - b. If a part of the drone becomes detached during the attempt, it may be retrieved after the attempt is scored and there is no penalty. If the spotter retrieves the detached part during the attempt, a 20% rules violation will be applied to the total flight score.
 - c. The spotter may not touch any part of the missions. A violation of this rule will result in a score of 0 for the attempt.
6. Missions do not need to be navigated in any specific order. Points are awarded based on successfully completing individual missions.
7. Missions may be attempted multiple times, but only the highest-scoring, single attempt will be recorded.
8. Participants will not be penalized for accidental contact with mission and/or airspace elements.
9. Intentional damage to missions will result in a score of 0 for the attempt.
10. Participants will be asked to crash land or ground their drone if it poses a threat to any individuals or contacts the protective netting excessively.

11. At the end of the attempt, everything must be preserved as-is.
 - a. If the drone is moving, it must be landed, and the propellers powered down.
 - b. The drone must be left in place.
 - c. Missions completed after the end of the attempt will not be scored.
12. The judge will discuss what happened with the participants, mission by mission.
 - a. If the participants agree with the score sheet, the participants initials the score sheet and the score is final.
 - b. Any challenges must be made at this time by one of the participating team members to the coordinator or lead judge.
 - c. The coordinator or lead judge will make the final decision.
13. The team will be given three attempts. Each member of the team must serve as the pilot on at least one (1) of the attempts. The lowest scoring flight attempt will be dropped. The two (2) highest scoring flight attempts will be added together for the manual flight score.
14. Only competing participants and event officials may be in the event area.
15. Judges may inspect the drone at any time before, during, or after an attempt.
16. Any additional rules, regulations, or guidelines established by the event coordinator must be followed.

On-Site Semifinal Round - Drone Safety

1. Power cannot be applied to the propellers unless the drone is within the airspace.
2. Participants may not fly in an intentionally dangerous manner.
3. Participants must not fly their drones over or near other individuals.
4. Participants may only fly their drone when instructed to do so by a judge.
5. Participants will be asked to emergency stop or crash their drone if its flight course poses a threat to any individuals.
6. The Drone Control System must remain untouched while a participant is placing the drone on the launch pad.
7. Participants will adhere to all safety rules and directions of event officials.

On-Site Semifinal Round - Battery Safety

1. Participants may only connect a battery to the drone when the drone is on the hot table and told to do so by an official.
2. Participants should always be present during the charging of a lithium polymer (LiPo) battery.
3. Never charge a battery that is puffy or punctured.
4. Stop charging immediately if a battery heats up.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants prepare their documentation portfolio and turn it in [via JudgePro by the pre-conference deadline](#).

On-Site Semifinal Round

5. While wearing safety glasses and safety vests, participants attend a fifteen (15)-minute orientation meeting at the time and place stated in the conference program.
6. Students will arrive at the assigned place and time to:
 - a. Set up their pit areas
 - b. Set up their drone
7. Entries are reviewed by judges to determine safety.
8. Safe drones will be given an opportunity to test.
 - a. Participants must wear safety glasses and safety vests at all times during the event.

- b. At the hot table, participants power up their drone and connect to their Drone Control System.
 - c. Only one (1) team at a time competes within the airspace.
 - d. The spotter places the drone on the launch pad. An attempt begins with a countdown.
 - e. The pilot and spotter must remain outside the airspace and controls the drone from outside the perimeter (protective netting).
 - f. Participants will have one (1) minute to complete the flight missions manually. The time never pauses.
 - g. Participants will be given up to three (3) attempts to achieve their best score. Each member of the team must complete at least one (1) attempt as the pilot. The lowest scoring flight attempt will be dropped.
9. Portfolio, challenge, and interviews scores are combined with race points to determine the final standings.

2026 MS Drone

Overview

The mission of your team is to document and test-fly an Unmanned Aerial Vehicle (UAV) drone capable of completing landing and completing tasks of varying difficulty. The competition course is designed to test the handling, maneuverability, and piloting skills of your drone. The event will include a pre-inspection and check-in of the team members, drone, and all equipment used for flight operations (e.g., controllers, etc.).

The Drone Challenge requires competitors to learn how to work as a team to complete a flight challenge. Drones may differ in their capabilities. All drones must fly through given obstacles to have a successful mission.

The Flight Mission

- Mission – Three (3) attempts. Each attempt will be one (1) minute (running clock).
- Pilots create their own obstacle paths, each containing a combination of the following: ladders, reverse hurdles, and floating squares. Obstacles must be fully completed within the given time limit to receive credit.
- Flight Sequence:
 - Start from the launch station (pilot area)
 - Choose a path of the chosen obstacles
- Spotters are encouraged to communicate the drone's location and any observed obstacles
- The judging team will score:
 - Obstacle path completions
 - Time to complete all obstacles

Overview / Procedures

- When the UAV drone is outside the competition tent area, all propellers must be removed. No exceptions. Violations will result in automatic disqualification.
- The Event Coordinator will assign each team a designated pit area for preparation and repair of drones.
- Course Obstacles location and selected animal payloads will be determined at the conference and a layout will be given at the time of check in/signup for team planning.
- Points will be awarded for:
 - Path selection and obstacle completion
- Obstacle Points:
 - Can only be earned once per run
- Drones must return to the start zone between each run.
- In the event of a tie, the team with the faster mission time will advance.

Regulations

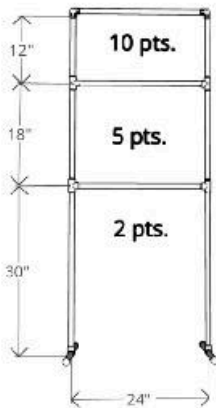
1. Safety is the top priority. Violations of safety guidelines may result in a warning or disqualification, depending on severity.
2. All drone operators must wear:
 - Safety glasses
 - High-visibility safety vests
3. Upon entering the competition tent field, teams may only connect their drone's battery and power on with permission from the event coordinator or other authorized personnel.

4. When a drone is outside the competition tent, all batteries must be disconnected from the drone stack (including the flight controller, receiver, and ESCs), unless they are instructed to do so at the Hot Table.
5. During flight sessions, all drones in the pit area or outside the flight area must be powered off.
6. UAV drones must only fly within the designated competition or practice fields.
7. Violation of any rule above may result in disqualification.

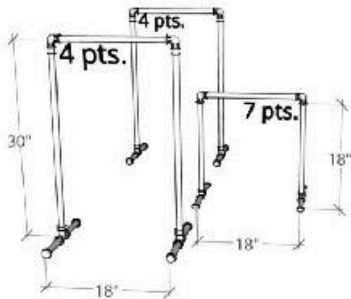
Course Obstacles:

Course Obstacles location will be determined at the conference and a layout will be given at the time of check in/signup for team planning.

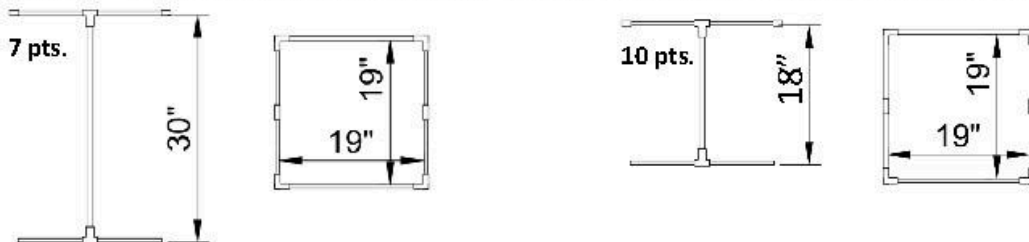
Obstacle 1– The ladders – made of ½" PVC Pipe and measurements are the opening size.



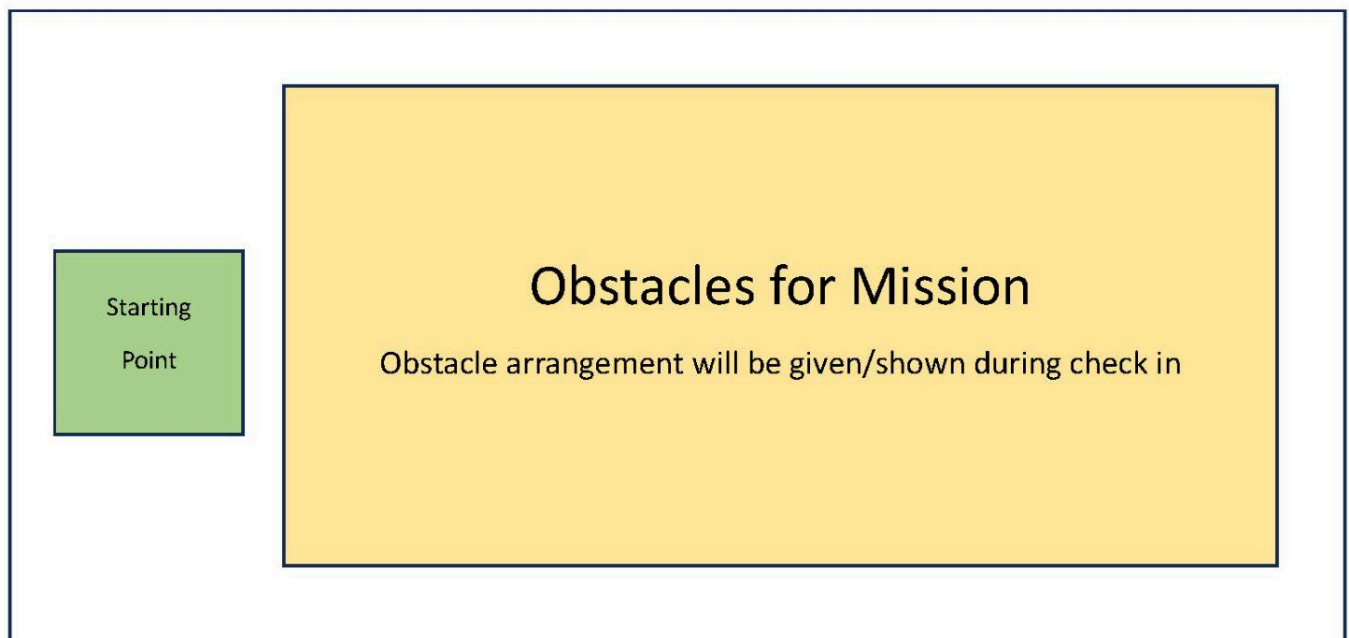
Obstacle 2– The reverse hurdles – made of ½" PVC Pipe and measurements are the opening size.



Obstacle 3 – The Floating Squares- made of ½" PVC Pipe and measurements are the opening size.



Team Number				Attempt Points Possible	
Mission	Obstacles Completed	Obstacles Points Received	Time taken to complete all obstacles	(Points Completed/Points Possible) x 60 = Attempt Score	Attempt Score Dropped (X)
Attempt #1					
Attempt #2					
Attempt #3					





This page was
intentionally left
blank(ish).

Mass Production

Who

3-6 members per team
3 teams per chapter
10 teams will progress to the semifinals
based on their documentation portfolio
score.

Where

On-Site with a pre-conference
submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the
JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Participants manufacture a marketable product that addresses the annual theme. The development of the product prototype is documented in a portfolio that presents participant knowledge and skills related to the mass production process. Through a demonstration of the prototype and an interview, semifinalists support the viability of the prototype.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio	<input type="checkbox"/> Prototype <input type="checkbox"/> Presentation & Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Theme: Hobby Accessory

Pre-Conference Preliminary Round - Portfolio

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

1. Title page with the event title, the product name, the conference city and state, the year, and the team/chapter ID number; one (1) page
2. Table of contents; pages as needed
3. Description of the product: a written description of the product, instructions for its use, the overall advantages and usefulness of the product, its audience, and related safety considerations; one (1) page
4. Design efforts: sketches, pictures, magazine clippings, and other graphic design elements used in the development of the final design; maximum three (3) pages
5. Drawings:
 - a. An orthographic drawing in three (3) views with dimensions to aid production; one (1) page
 - b. An assembly drawing or a pictorial drawing with labels; one (1) page
 - c. Materials list: a list of materials (including sizes and market value) used to fabricate the product; each item or sub-assembly should be identified as student produced, standard stock item, or purchased subassembly; one (1) page
 - d. Tools and machines list: a list of any hand, power, and stationary tools and/or machines used to fabricate the product; one (1) page
 - e. Production plan: a production outline or flow chart; pages as needed.
 - f. [Work Log](#); pages as needed

- g. [Photo/Film/Video Consent and Release forms](#). If the entry contains images of people (minors require parental consent), proof of consent must be included for each person; pages as needed
- h. Photographic Verification – photographic or digital images that verify the mass production of at least three (3) identical copies of the product including the prototype and photographic or digital images that document the team project with a photo timeline; maximum five (5) pages.

CANNOTS

AI cannot be used to generate any content whatsoever.

On-Site Semifinal Round - The Prototype

1. The full-size prototype must be displayed in such a way that it does not exceed 15" deep x 24" wide x 24" high.
2. Craftsmanship:
 - a. The product must display good craftsmanship.
 - b. The product should show creative thinking by the students.
3. Appropriate materials: The product must use the materials in a manner that adds value to the product.
4. Efficiency of design: The product must address the identified consumer need, and use the materials effectively.
5. Aesthetics: The product must be pleasing to view.
6. Ergonomics: The product must be easy to use.
7. Appropriate solution: The product must function in a manner that solves the identified problem.
8. Creativity: The product must display an original solution to the identified consumer need.

On-Site Semifinal Round - The Presentation & Interview

MUSTS

1. Semifinalist teams report at the time and location stated in the conference program for the presentation/interview.
2. Using leadership and/or 21st century skills, the goal of the team is to demonstrate their skill and knowledge pertaining to the mass production process.
3. The presentation is limited to three (3) team representatives. Each member should be an active participant in the presentation/interview.
4. Representatives may reference their documentation portfolio and prototype during the presentation and interview.
5. Teams may bring and use audio/visual materials or a laptop for their presentation. AC power will not be provided or available. Projectors and screens are not permitted.

OTHER CONSIDERATIONS

Time limits:

1. One (1) minute for set-up
2. Seven (7) minutes for presentation
3. Two (2) minutes to respond to questions from judges
4. A five-(5) point deduction will be incurred for any time infraction.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants research designs for products and develop a full-size prototype that can be replicated for three (3) identical copies of the product. Only one (1) prototype will be submitted on-site as a part of the entry.
5. Create working drawings and devise production plan flow chart(s).

6. Tool up for production.
7. Conduct a trial run and evaluate the process for effectiveness and efficiency.
8. Manufacture several products using line production techniques.
9. Document the process with photographic images of the additional copies of the prototype as part of the portfolio submission.
10. Document the team project with a photo timeline.

On-Site Semifinal Round

11. No more than two (2) team representatives report at the time and place stated in the conference program to check in one (1) full-size prototype.
12. Up to three (3) team representatives report at least ten (10) minutes prior to their assigned time to the designated place for their presentation.
13. Semifinalist team representatives participate in the on-site presentation and interview.
14. Team representatives pick-up their entry from the display area at the time and place stated in the conference program.



This page was
intentionally left
blank(ish).

Mechanical Engineering

Who

2-3 members per team
3 teams per chapter
12 teams will progress to the semifinals
based on their documentation portfolio
score.

Where

On-Site with a pre-conference
submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the
JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

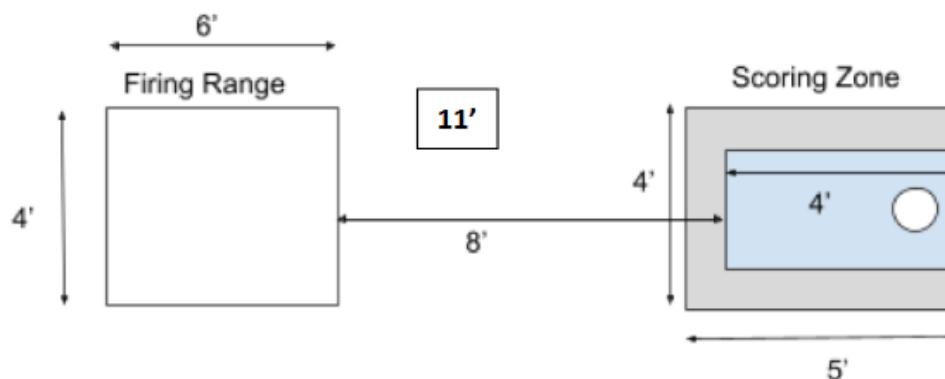
What

Participants design, document, and build a mechanical device (working catapult) that incorporates the elements of the annual theme/problem. Finalists are determined based on an evaluation of the documentation portfolio and participation in a head-to-head bracket.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio	<input type="checkbox"/> Qualifying Rounds <input type="checkbox"/> Head-to-Head Challenge

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Theme: The distance for the contest field for 2026 will be eleven feet (11'). The front of the cornhole, regulation size (4ft. x 2ft) board will be 11' from the front of the firing line. Please refer to the official rules for specifications on the cornhole board and bean bags. The scoring area will consist of a 2' x 4' regulation cornhole board and 1' perimeter on the floor around the front and sides of the cornhole board.



Pre-Conference Preliminary Round - The Portfolio

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

1. Title Page with the event title, the conference city and state, the year, and the team/chapter ID number; one (1) page
2. Table of contents; pages as necessary
3. Identification and explanation of the engineering design process used to produce the catapult; maximum six (6) pages

4. Bill of materials; one (1) page
5. Design sketches and detailed drawings; maximum two (2) pages
6. References and resources; one (1) page
7. [Work Log](#); pages as needed

CANNOTS

AI cannot be used to generate any content whatsoever.

On-Site Semifinal Round - The Catapult

MUSTS

1. Catapults must be started and completed during the current school year.
2. Both students must be present for the performance stage of the event.
3. Participants must bring and wear safety goggles during the performance stage of the event.
4. Teams must provide their own tape measure (at least 25' length).
5. The base of the catapult should accommodate the provided ballast. The ballast will be two (2) 25lbs Olympic plate weights, provided by TSA on site.
6. The catapult must operate completely within the given area; the launch arm may extend beyond the front of the catapult only while launching.
7. The catapult may have any type of spring mechanism to power the arm, but all parts must be contained within the 24" tall x 24" long x 18" wide maximum footprint prior to launch.
8. All parts of the catapult must initiate behind the launch line, but parts may extend over the line during and after the last launch.
9. The catapult must be made entirely from PVC pipe, with the exception of the launch mechanism, firing mechanism, fasteners, and safety items. These items may be wood or metal and must be constructed in a safe way, so as not to damage the device, the testing area, or cause harm to others.
10. The catapult must have at least a five (5)-foot pull cord to launch from a safe distance.
11. When the catapult is on display or not in the performance stage, it must be fully disabled and unable to be readied for firing.

CANNOTS

1. The catapult may be no larger than 24" tall x 24" long x 18" wide while in the loaded position. The launch arm may extend beyond the size parameters of the catapult only while launching.
2. The catapult cannot have wheels.
3. The following may not be used:
 - a. Glass
 - b. Flammable, corrosive, or explosive materials
 - c. Compounds that produce odors or gases

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Teams must identify and understand the use of subsystems with a larger system
5. Teams must research and identify an engineering design progress that influenced the design of the catapult.

Pre-Conference Preliminary Round

1. Participants prepare their documentation portfolio and turn it in [via JudgePro by the pre-conference deadline](#).

On-Site Semifinal Round - Qualifying Rounds

6. Participants check in their entries at the time and place stated in the conference program.

7. Catapults are inspected by evaluators to determine among other things, safety. Catapults that meet all compliance regulations will be approved for the performance stage of the event. Any unsafe devices will be disqualified. (Unsafe catapults include those with parts that detach during operation or those with a dangerous rotation or throwing motion, either of which could cause harm or damage.) Judges will make a final determination about the operational safety of a catapult.
8. Teams will receive eight (8) cornhole bags to score points in a two (2)-minute scoring stage. Cornhole bags are square bags that measure 6" x 6" (15.24 cm x 15.24 cm) with a thickness between 1.125" - 1.5" (28.5- 38.1 mm). The weight of cornhole bags is regulated at between 14-16.5 oz (440-470 g).
9. Students must bring and wear safety glasses for this stage of the event.
10. One (1) team member will use a tape measure for measuring and calibrating the distance from the front of the catapult to the front of the cornhole board. The tape measure will be provided by the team.
11. The team will be given three (3) minutes of practice to adjust the catapult for accuracy to the required distance.
12. Teams will position their catapult on the "firing range" and wait for the command to "FIRE".
13. When teams receive their bags and the fire command is given, they will have two (2) minutes to launch up to eight (8) bags to accumulate as many points as possible on/in the cornhole board. Each team must cease firing at two (2) minutes. No shots taken after time has been called will count. The two (2)-minute timer begins with the "FIRE" command.
14. Teams are allowed to repair a catapult malfunction, but the timer does not pause.
15. Each team must cease firing at two (2) minutes. No shots taken after time has been called will count. A shot fired before the two (2) minutes and lands after the two (2) minutes will still count. The amount of time left is recorded if teams finish before the two (2) minute times.
16. Scoring is as follows: in the hole, five (5) points; on the board, three (3) points; off the board in the marked area, one (1) point. A bag on the line will count as "in the marked area." (A vertical plane extends upward from the outside of the line and counts a one [1] point).
17. Scores are not tabulated until the two (2)-minute timer has expired. Cornhole bags are scored where they rest at the end of two (2) minutes or the team declares they are finished with their turn.
18. Ties will be broken as follows.
 - a. The team with the highest score and the fewest number of bags scored.
 - b. The team with the greatest time remaining.
19. Team members must collect all eight (8) cornhole bags once judges complete recording points and before leaving the event area and returning them to the firing range.
20. Preliminary ranking will be determined from points earned.
21. Lack of catapult compliance may result in disqualification.

On-Site Semifinal Round - Head-to-Head Rounds

22. The top twelve (12) compete in a head-to-head single elimination bracket to earn point for the finals.
23. Teams will face off head-to-head in a one (1)-minute shootout of four (4) bags on their designated cornhole board. Teams will receive a one (1)-minute warm-up before each round.
24. The team with the highest score or tie breaker will advance to the next round of the bracket.
25. Semifinal ties are broken as follows:
 - a. The team with the highest score and fewest number of bags scored.
 - b. The team with the shortest time recorded to score the most points.
 - c. Sudden death shootout (one [1] launch each with the higher score for the launch determining the team to advance – repeating as necessary).
26. Following the completion of the bracket, participants pick up their entries from the display area at the time and place stated in the conference program.
27. Preliminary and portfolio scores are combined with bracket points to determine the final standings.



This page was
intentionally left
blank(ish).

Medical Technology

Who

2-6 members per team
3 teams per chapter
12 teams will progress to the semifinals based on their documentation portfolio score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Participants conduct research on a contemporary medical technology issue related to the annual theme, document their research, create a display, and build a prototype. Semifinalists deliver a presentation about their entry and participate in an interview.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Informational pamphlet <input type="checkbox"/> Multimedia video	<input type="checkbox"/> Display <input type="checkbox"/> Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Theme: Musculoskeletal Conditions & Modern Technologies: Teams will select a musculoskeletal condition and outline it in the display. Then, teams will select modern medical technology that will be highlighted in an informational pamphlet and multimedia video.

Pre-Conference Preliminary Round - The Informational Pamphlet & Multimedia Video

MUSTS

Informational Pamphlet:

1. Participants must create an informational pamphlet detailing the medical technology solution chosen
2. Physicians often give pamphlets to patients and their families as a means to disperse more information about a suggested treatment or procedure. Participants should design their informational pamphlet to be used in this setting.
3. The pamphlet should be folded and composed of one (1) sheet of paper not to exceed the size 8.5" x 11".
4. The pamphlet should include information about the chosen medical technology/solution, including how it works, its cost, its availability, and its overall impact on society.
5. A QR code linking the multimedia video should be included somewhere on the pamphlet. Judges should be able to scan the QR code with a smartphone.
6. Resources used by participants in the informational pamphlet must be cited using the same guidelines outlined for the display and included on the citation list adhered to the back of the display.

Multimedia Video:

1. The participants should describe the medical technology/solution in the multimedia video as if they were describing it to a patient, who is considering this technology, or their family.
2. The video should include what to expect if the patient moves forward with the procedure/technology/solution, including associated risks, and any other treatment that will be required to supplement the technology.

3. Teams must demonstrate strong science communication skills by delivering the information in an accessible manner so that a general audience could understand it.
4. The length of the video should be no less than two (2) minutes and not exceed four (4) minutes.
5. Teams may use any editing software of their choosing along with features such as sounds and effects the software offers. The software and any effects/sounds/graphics used not belonging to the team must be appropriately cited according to procedures outlined for the display and included in the citation list adhered to the back of the display.
6. The multimedia video should be linked to a QR code, which should be included in the informational pamphlet.
7. The multimedia video accessed using the QR code cannot require any authorization, download, or password to view. If required, the multimedia video will not be judged.

CANNOTS

AI cannot be used to generate any content whatsoever.

OTHER CONSIDERATIONS

Students must understand the fundamental concepts and principles of the contemporary issue and medical technology they research. Research about the issue should focus on significant impacts (opportunities and risks) on the environment, economy, and society, as well as any important ethical considerations.

On-Site Semifinal Round - The Display

MUSTS

1. The display should include information about the disease, condition, or problem addressed by the medical technology. Participants should prepare the display as if they were delivering a presentation on the particular issue at a medical conference. Information about the solution/medical technology should be reserved for the informational pamphlet and multimedia video.
2. Supporting materials, such as research, references, and resources, should be exhibited in a creative and effective manner on a stand-alone display and should include at a minimum:
 - a. Team identification number
 - b. Overview of the issue researched, including its prevalence in the United States, how it is diagnosed, and the science behind the disease state or condition.
 - c. Societal impact of the problem, including economic, social, environmental, and ethical considerations
 - d. Supporting information such as logs, graphs, sketches, drawings, illustrations, and photographs
 - e. The display must incorporate the use of design principles. Participants highlight the display with creative visual elements (e.g., photos, titles) to actively engage the audience. Participants may use images “labeled for “re-use,” but must properly cite the source.
 - f. Copyright: Citation of all ideas, fonts, and images from sources other than the designer, and/or that are copyrighted (most fonts and images found on the web are copyrighted material unless purchased or offered as free-domain) and MUST be included on the back of the display. Clip art must be documented.
 - g. [Photo/Film/Video Consent and Release forms](#). If the entry contains images of people (minors require parental consent), proof of consent must be included for each person; pages as needed
3. If the display requires power, they must be powered by dry-cell batteries or photo-voltaic cells.
 - a. The power supply must physically fit within the display dimensions.
 - b. All power must be switched off once the team has completed set-up.
 - c. If teams want judges to activate any electronic device in their model/prototype/display, complete instructions must be provided to judges on how to power up the model/display.

CANNOTS

1. The size of the display may not exceed 15" deep x 30" wide x 48" high.
2. A/C electricity may not be used.
3. Violation of the following will result in disqualification:
 - a. No liquids, viruses, live plants, or animals may be used as a part of the display.

- b. No harmful or illegal substances may be displayed.

On-Site Semifinal Round - The Interview

MUSTS

1. The interview is limited to three (3) team representatives. Each member should be an active participant in the interview.
2. Representatives may reference their display and informational pamphlet during the interview.

OTHER CONSIDERATIONS

Five (5) minutes are allowed for the semifinal interview broken down as follows:

1. One (1) minute for set-up
2. Four (4) minutes to respond to questions from judges.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Participants research the issue using credible sources.

Pre-Conference Preliminary Round

5. Participants prepare their multimedia video, display, and informational pamphlet according to the regulations and turn it in [via JudgePro by the pre-conference deadline](#).

On-Site Semifinal Round

6. No more than two (2) team representatives report at the time and place stated in the conference program to check in the display.
7. Up to three (3) team representatives report at least ten (10) minutes prior to their assigned time to the designated place for their interview.
8. Semifinalist team representatives participate in the on-site interview.
9. Team representatives pick-up their entry from the display area at the time and place stated in the conference program.



This page was
intentionally left
blank(ish).

Microcontroller Design

Who

1-6 members per team
2 teams per chapter
10 teams will progress to the semifinals
based on their documentation portfolio
score.

Where

On-Site with a pre-conference
submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the
JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

To address the annual theme/problem, participants design and create a working digital device, document the development process, and demonstrate their product as part of a presentation.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio	<input type="checkbox"/> Device <input type="checkbox"/> Presentation

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Theme: Musical Instrument

Pre-Conference Preliminary Round - The Portfolio

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

1. Title page with the event title, the conference city and state, the year, and the team identification number; one (1) page
2. Table of contents; pages as needed
3. A description of the team’s project, including an explanation of the theme; pages as needed
4. [Work Log](#); pages as needed
5. Source code; pages as needed
6. Materials list; one (1) page
7. Team’s evaluation of its work; one (1) page
8. References and resources list in a professional citation style of the competitors choosing; pages as needed. Failure to use a professional citation style will result in a rules violation of 20% (twenty percent). Some examples of professional citation styles include MLA, APA, Chicago, and IEEE.

CANNOTS

AI cannot be used to generate any content whatsoever.

On-Site Semifinal Round - The Device

MUSTS

1. The device (product) must include a programmed microcontroller that controls the device functionality.
2. Aesthetics: The product must be well-designed, design elements are incorporated, and show good craftsmanship.

3. Functionality: The product must operate as intended; remote control technology may be used to operate the device.
4. The product must be relevant to the given theme.
5. Coding and Circuit Design: The product must show proper and effective use of coding and circuit methods.
6. AC power and/or a dry cell battery may be used.

CANNOTS

The device may be no larger than 18" x 12" x 12".

On-Site Semifinal Round - The Presentation

MUSTS

1. Participants are given two (2) minutes to set up their device and three (3) minutes to explain the problem and demonstrate the functionality of the device.
2. A deduction of five (5) points will be incurred for exceeding the five (5)-minute presentation time limit.
3. Participants are allowed two (2) minutes to return the device to the storage tables following the presentation. Any other items must be taken from the space.
4. The device and portfolio will be picked up by the team at the time and location posted in the conference program.

Notes

- www.pictutorials.com/what_is_microcontroller.htm
- www.newbiehack.com/MicrocontrollerTutorial.aspx
- people.ece.cornell.edu/land/courses/ece4760/FinalProjects
- www.circuitstoday.com/8051-projects-and-circuits

How

General

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants concentrate their efforts in the design and development of a working digital device (product).
5. Participants create a portfolio, documenting their projects and process.
6. Participants prepare an oral presentation.

On-Site Semifinal Round

7. No more than three (3) team representatives report at the time and place stated in the conference program with the device
8. One (1) to three (3) team representatives present the following at their assigned time:
 - a. Research findings
 - b. An explanation of the value of their product
 - c. A demonstration of the product's functionality
 - d. The device will be returned by the team to the storage location at the completion of the presentation and then will be picked up by the team at the time and location posted in the conference program.

Off the Grid

Who

1-6 members per team
3 teams per chapter
12 teams will progress to the semifinals based on their documentation portfolio score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

In response to the annual theme, participants conduct research on a sustainable architectural design for a home in a specified country. They then produce a portfolio and create a display and a model. Semifinalists present their design and participate in an interview.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio	<input type="checkbox"/> Display <input type="checkbox"/> Model <input type="checkbox"/> Presentation & Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Theme/Design Brief: Water Collection in Kenya

Family Overview: Maya and her family live in a rural village in Kenya. The family consists of Maya (the mother), her husband, and three children. They live in a small, single-story dwelling home made from mud bricks, with a thatched roof. The house has two bedrooms, a living room, and a small kitchen. The family has limited access to running water, and the only available water source is a small, seasonal river a 30-minute walk away. During the dry season, this river often dries up, and Maya must buy water from a nearby vendor; this can be expensive and unreliable.

Challenge: Maya’s family needs a sustainable off-grid solution to collect and store water. The current system involves carrying water from the river during the rainy season and relying on expensive water deliveries during the dry season. Your task is to optimize the family’s water collection and storage system, using natural resources like rainwater and local materials.

Requirements:

- The system must provide enough clean water for the family’s daily needs, including drinking, cooking, and bathing.
- The system should make use of rainwater harvesting to reduce reliance on external water sources.
- The water storage system must be designed to handle both the rainy season and the dry season.
- The system should include a basic filtration solution to ensure the water is safe for drinking.
- The design must be cost-effective and use local materials when possible.

Budget: Your team has a budget of \$1,500 to develop and implement the water collection and storage system. This budget must cover materials for rainwater collection, filtration, storage tanks, and installation.

Pre-Conference Preliminary Round - The Portfolio

MUSTS

1. Participants must understand the fundamental concepts and principles of the sustainable architecture that they are implementing. Research should focus on the technology and processes used to optimize sustainability and promote off-the-grid living for the scenario described in the annual design brief.
2. The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:
 - a. Title page with the event title, the conference city and state, the year, and the team ID number; one (1) page
 - b. Table of contents; one (1) page
 - c. A description of how the team interpreted the design challenge and an explanation of the style and merits of the solution; maximum two (2) pages
 - d. A description of the country's environment, climate, natural resources, and economy; maximum two (2) pages
 - e. Bill of materials comprised of items used to construct and implement the solution, including project costs of each line item, which is not to exceed the given budget from the annual design brief; pages as needed
 - f. Description of alternative solutions and a discussion of why the chosen solution was utilized instead; maximum two (2) pages
 - g. CAD drawings (each drawing to be submitted on maximum drawing sheets cut size B [11" x 17"] with appropriate scale size noted on the drawing); pages as needed
 - i. Schematics showing the incorporation of the system into existing infrastructure in the given design brief
 - ii. Diagrams explaining design elements
 - h. References and resources page. Participants must cite a minimum of three (3) credible resources; pages as needed
 - i. [Work Log](#); pages as needed

CANNOTS

AI cannot be used to generate any content whatsoever.

On-Site Semifinal Round - The Model

MUSTS

1. Models must fit within the allotted display space
2. Dry cell or photo-voltaic cells may be used for power, if desired
3. The power source used must fit within the maximum display area
4. All power must be turned off once setup is complete.
5. If operating instructions or login information are necessary, they must be clearly displayed

CANNOTS

1. A/C electricity is prohibited
2. Violation of the following will result in disqualification:
 - a. No liquids, viruses, live plants, or animals may be used as a part of the display.
 - b. No harmful or illegal substances may be displayed.

On-Site Semifinal Round - The Presentation & Interview

OTHER CONSIDERATIONS

1. Ten (10) minutes are allowed for the semifinal presentation and interview broken down as follows:
 - a. Seven (7) minutes for the presentation
 - b. Three (3) minutes to respond to questions from judges
2. Participants may reference the display, model, and portfolio. No additional materials or devices are allowed for the presentation.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants develop a solution to address the challenge using sustainable, off-the-grid practices based on the given country's climate conditions, infrastructure, construction methods, and a given budget.
5. Participants prepare their documentation, display, and model according to the regulations.
6. Participants prepare a presentation and be prepared to respond to questions from judges.

On-Site Semifinal Round

7. No more than two (2) team representative report at the time and place stated in the conference program to check in:
 - a. The display
 - b. The model
8. One to three (1-3) team representatives report at the assigned time and place stated in the conference program to participate in the presentation/interview.



This page was
intentionally left
blank(ish).

Pin Design

Who

5 individuals per chapter
15 individuals will progress to the semifinals based on their documentation portfolio score.

Where

On-Site with a pre-conference submission.

When

All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

The Pin Design event recognizes creative middle school students who develop an original pin design to represent Arkansas TSA. Participants use digital design tools to create an image that is clear, distinctive, and reproducible as a small pin. This event allows students to apply design principles, graphic communication skills, and artistic expression while focusing on a real-world promotional product.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Design	<input type="checkbox"/> Display <input type="checkbox"/> Presentation & Interview

This event will use the rubric included below.

Pre-Conference Preliminary Round - The Design

MUSTS

1. All entries should be submitted on a single 8.5" by 11" page and must include two identical and readable sizes of the pin design as outlined below:
 - a. Enlargement size (to show greater detail): the largest dimension must be either 7" wide and/or 7" tall.
 - b. Production size (to show the actual pin size): all dimensions must be between 3/4" and 2".
 - c. A penalty of five (5) points will be assessed for every 1/4" over or under on the enlargement size and five (5) points for every 1/8" over or under on the production size.
2. All entries must be rendered in color. Preferably, entries will be created using computer design software. Entries may also be hand-drawn, painted, or rendered in colored pencils or markers.
3. Wording on the pin must reference the name of the state, the year, and TSA.
4. The design must be the original concept of the competitor. Use of the competitors' own original photos, drawings, or digital art is highly recommended. Designs may be constructed of lesser amounts of Creative Commons licensed material, material in the public domain, or commercial stock images. These materials must be accompanied by proof of license and must provide attribution to credit the originator. Designs that violate copyright laws are subject to disqualification.

CANNOTS

1. AI cannot be used to generate any content whatsoever.
2. Neither the Arkansas TSA nor the National TSA logo should appear on the pin.

OTHER CONSIDERATIONS

The top three pin designs will be produced and used as trading pins at the 2026 TSA National Conference. The first place pin will make up ~20% of the produced stock, the second place pin will make up ~30% of the produced stock, and the third place pin will make up ~50% of the produced stock.

On-Site Semifinal Round - The Display

MUSTS

1. Displays should be informative and educational and must also be crafted independently by the competitor.
2. Decorative items and craft supplies such as stickers, lettering, etc., are permitted in the display.
3. If the display requires power, it must be powered by dry-cell batteries or photo-voltaic cells.
 - a. The power supply must physically fit within the display dimensions.
 - b. All power must be switched off once the team has completed set-up.
 - c. If teams want judges to activate any electronic device in their display, complete instructions must be provided to judges on how to power up the display.
4. If operating instructions are necessary, they must be clearly displayed and should include information about turning on devices, logging in, etc.

CANNOTS

1. AI cannot be used to generate any content whatsoever.
2. The size of the display may not exceed 15" deep x 30" wide x 48" high.
3. A/C electricity may not be used.
4. No liquids, viruses, live plants, or animals may be used as a part of the display.
5. No harmful or illegal substances may be displayed.

On-Site Semifinal Round - The Presentation & Interview

MUSTS

1. Participants will deliver a five (5) to seven (7) minute presentation and question/answer session regarding their design.
2. After the presentation, a question/answer session regarding their design will be given a maximum of three (3) minutes.
3. Talking points should include:
 - a. How the competitor produced the concept
 - b. The process in which the competitor designed the pin
 - c. Why the competitor feels it represents their state
 - d. What its unique qualities are
 - e. Why the pin would be desirable to wear, collect, or trade at the National Conference

OTHER CONSIDERATIONS

The maximum time allowed for presentation and interview is 10 minutes. No extra time will be given if the oral presentation does not leave time for the question/answer session.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants prepare their design and turn it in [via JudgePro by the pre-conference deadline](#).

On-Site Semifinal Round

5. The semifinalist individual reports to the event area for the presentation/interview.

Participant/Team ID #: _____

PIN DESIGN

2026 & 2027 OFFICIAL RATING FORM

MIDDLE SCHOOL

Judges: Using minimal (1-4 points), adequate (5-8 points), or exemplary (9-10 points) performance levels as a guideline in the rating form, record the scores earned for the event criteria in the column spaces to the 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.) A score of zero (0) is acceptable if the minimal performance for any criterion is not met.

Go/No Go Specifications

- Before judging the entry, ensure that the items below are present; indicate presence with a check mark in the box.
- If an item is missing, leave the box next to the item blank and place a check mark in the box labeled ENTRY NOT EVALUATED.
- If a check mark is placed in the ENTRY NOT EVALUATED box, the entry is not to be judged.

- ☐ PRELIMINARY- The design was submitted by the necessary deadline and is viewable without requiring permission
- ☐ SEMIFINAL- Display is present

PRELIMINARY PIN DESIGN

CRITERIA	Minimal Performance	Adequate Performance	Exemplary Performance	POINTS
	1-4 points	5-8 points	9-10 points	
Creativity and Originality (x2)	Design lacks creativity; idea is unoriginal or copied.	Design shows some creativity and originality; moderately engaging.	Design is highly creative, original, and distinctive.	/20
Simplicity and Clarity (x1)	Design is cluttered or unclear; not effective at small scale.	Design is mostly clear but loses some detail at small scale.	Design is clear, simple, and easily recognizable at small scale.	/10
Use of Color (x1)	Poor or ineffective use of color; not suitable for pin production.	Adequate use of color; somewhat effective for reproduction.	Excellent and balanced use of up to 6 colors; enhances manufacturability.	/10
Digital Artwork Quality (x2)	Poor quality artwork; unpolished or incomplete.	Good quality artwork; mostly clean and precise.	Professional-level digital artwork; clean, precise, and visually polished.	/20
PRELIMINARY PIN DESIGN SUBTOTAL (60 points)				

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

Indicate the rule violated: _____

—
—

PRELIMINARY SUBTOTAL (60 points)

SEMIFINAL DISPLAY				
CRITERIA	Minimal Performance	Adequate Performance	Exemplary Performance	POINTS
	1-4 points	5-8 points	9-10 points	
Informative and Educational Value (x1)	Display provides little to no educational content; unclear or irrelevant.	Display communicates some useful information; generally understandable.	Display is highly informative, well-organized, and clearly educational.	/10
Creativity and Craftsmanship (x2)	Display is poorly constructed, with little creativity or attention to detail.	Display shows acceptable craftsmanship and some creativity.	Display is well-crafted, neat, and demonstrates strong creativity and effort.	/20
Use of Materials and Presentation (x1)	Materials are ineffective, distracting, or poorly integrated.	Materials are acceptable and support the display's purpose, but lack polish.	Materials enhance the display; presentation is visually engaging and professional.	/10
SEMIFINAL DISPLAY SUBTOTAL (40 points)				

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

SEMIFINAL PRESENTATION/INTERVIEW				
CRITERIA	Minimal Performance	Adequate Performance	Exemplary Performance	POINTS
	1-4 points	5-8 points	9-10 points	
Organization of Presentation (X1)	Participant seems unorganized and unprepared for the presentation.	Participant is generally prepared/organized in the overall presentation.	The presentation is logical, well organized, and easy to follow.	/10
Knowledge (X2)	Participant seems to have little understanding of the concepts of the design challenge; vague answers to interview questions are provided.	An understanding of the concepts of the design challenge, and answers to questions, are adequate.	There is clear evidence of a thorough understanding of the design challenge; questions are answered well.	/20
Articulation (X1)	Communication of the design process is unclear, unorganized, and or illogical; leadership and/or 21st century skills are not evident.	Communication of the design process is somewhat logical and clear; leadership and/or 21st century skills are somewhat evident.	Communication of the design process is clear, concise, and logical; leadership and/or 21st century skills are clearly evident.	/10
Delivery (X1)	The individual is verbose and/or uncertain in the presentation/interview; participant posture, gestures, and lack of eye contact diminish the delivery.	The individual is somewhat well-spoken and clear in the presentation/interview; participant posture, gestures, and eye contact result in an acceptable delivery.	The individual is well-spoken and distinct in the presentation/interview; participant posture, gestures, and eye contact result in a polished, natural, and effective delivery.	/10
SEMIFINAL DISPLAY SUBTOTAL (50 points)				

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

SEMIFINAL SUBTOTAL (90 points)	
---------------------------------------	--

To arrive at the TOTAL score, add any subtotals and subtract rules violation points, as necessary.	TOTAL (150 points)	
---	---------------------------	--

Promotional Marketing

Who

3 individuals per chapter
10 individuals will progress to the semifinals based on their documentation portfolio score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Participants create and submit a marketing portfolio and required elements that address the annual theme/problem. Semifinalists complete a layout and design assignment for evaluation.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio	<input type="checkbox"/> On-Site Challenge

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Theme: Your TSA chapter is hosting a family-friendly game night to raise funds to cover costs for attendance at upcoming conferences. The event will include board games, trivia rounds, and student-led challenges.

For the competition, participants must use the following information:

Name of event: "Game on for Good: TSA Fundraising Game Night"

Date/time of event: August 15, 2026, 6:00-9:00 PM

School: Eastwood Harbor Middle School TSA

School mascot: Hawk

Address: 92 Harborline Ave., Eastwood Harbor, MD 21457

- **Printable:** Promotional graphic to be used for social media promotion of the event
- **Wearable:** Participant’s choice of a wearable design
- **Digital Signage:** Auto-advancing slides with event schedule and donation goals

Pre-Conference Preliminary Round - The Portfolio

MUSTS

1. Use of the TSA logo is permitted as long as it adheres to the current TSA Branding Guide.
2. Pre-conference, participants design the following three (3) components as part of the marketing portfolio based on the theme and requirements posted on the TSA website under Themes & Problems:
 - a. Printable signage must be viewable and saved as a PDF.
 - b. Participants design a wearable design. This design must be viewable and saved as a PDF.
 - c. Participants create digital signage using presentation software. This multimedia signage would be scrolling throughout an event.
 - i. A URL link must be provided for submission, which points directly to the team’s entry.

- ii. The URL submission of the digital signage must point directly to the individual's entry. Entries that require a request for access be granted will not be judged.
- 3. Supporting documentation must be included in the Promotional Marketing portfolio for each of the three (3) required items. Supporting documentation is limited to three (3) pages per item and must include the following information:
 - a. Explanation of how the design meets the challenge criteria
 - b. Notation of type of software program(s) used for design and layout
 - c. Explanation of the process used to create the item
 - d. Notation of all fonts, images, and ideas that are completely original for that design component
 - e. Citation of all ideas, fonts, and images from sources other than the designer, and/or that are copyrighted.
- 4. Copyright information
 - a. Completed [Student Copyright Checklist](#); one (1) page
 - b. [Photo/Film/Video Consent and Release forms](#). If the entry contains images of people (minors require parental consent), proof of consent must be included for each person; pages as needed
- 5. The Promotional Marketing solution must be submitted as a single, multi-page PDF file with the file name "Marketing Portfolio" and the individual student ID number. The portfolio should consist of the following components:
 - a. Title Page – with the event title, the conference city and state, the individual ID number, and the year; one (1) page
 - b. Printable signage design; one (1) page
 - c. Printable signage documentation; maximum three (3) pages
 - d. Wearable design; one (1) page
 - e. Wearable design documentation; maximum three (3) pages
 - f. Digital Signage URL; one (1) page
 - g. Digital signage documentation; maximum three (3) pages
- 6. Completed [Student Copyright Checklist](#); one (1) page
- 7. [Photo/Film/Video Consent and Release forms](#). If the entry contains images of people (minors require parental consent), proof of consent must be included for each person; pages as needed

CANNOTS

AI cannot be used to generate any content whatsoever.

On-Site Semifinal Round - The On-Site Challenge

MUSTS

- 1. Semifinalists report at the time and location provided in the conference program to complete the on-site layout and design challenge with-in the one (1) hour time limit.
- 2. Participants are required to bring:
 - a. One (1) laptop. Laptop must be fully charged with enough battery for the duration of the semifinal round.
 - b. One (1) computer mouse (if desired).
 - c. Pencils and/or Pens.
 - d. Notebook paper or copier paper.
 - e. Portable power bank (if desired).
- 3. Participants do NOT have access to electrical power/outlets during the event; however, they may choose to bring a portable power bank.
- 4. Clip art may be used for the on-site challenge, but the use of a template is not permitted. Students are responsible for providing their own graphic library.
- 5. The on-site work must be an original creation.
- 6. Internet access is permitted, but it will not be provided by TSA. TSA cannot guarantee the availability of cellular and/or Wi-Fi signals in the competition room.
- 7. Students save the design solution for the on-site problem as a PDF and submit their design solution using the submission procedures provided by the event coordinator.
- 8. Participants may leave the room only with permission from the event coordinator.

OTHER CONSIDERATIONS

1. A. Fifteen (15) minutes is allowed to set up.
2. One (1) hour is allotted to complete, save, and submit the on-site challenge.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants concentrate their efforts in creating a three (3)-part marketing portfolio containing:
 - a. A printable advertisement
 - b. A wearable design
 - c. Digital signage
5. Participants submit the printable advertisement, wearable design, and digital marketing portfolio as a multi-page PDF in the following order:
 - a. Title page
 - b. Printable advertisement
 - c. Supporting documentation for the printable advertisement
 - d. Wearable design
 - e. Supporting documentation for the wearable design
 - f. Digital Signage URL
 - g. Supporting documentation for the digital signage.
 - h. Copyright Information
6. All components of the chapter's entry (marketing portfolio PDF) must be finished, submitted, and accessible via the Internet by 11:59 p.m. CST on January 14, 2026.

On-Site Semifinal Round

7. Semifinalists report at the time and place stated in the conference program with a laptop computer.
8. Semifinalists complete the on-site layout and design challenge within the one (1)-hour time limit.
9. Once semi-finalists complete their solution to the the design challenge, they will save their final entry as a PDF and submit their design solution using the submission procedures provided by the event coordinator.
10. Once the participant has submitted the solution, the participant may leave and take their computer out of the room.



This page was
intentionally left
blank(ish).

STEM Animation

Who

2-6 members per team
3 teams per chapter
12 teams will progress to the semifinals based on their documentation portfolio score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Participants design and create a STEM animation video and documentation portfolio to address the annual theme/problem. Semifinalists present their animation and explain the elements of their portfolio/entry.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio <input type="checkbox"/> Animation	<input type="checkbox"/> Presentation

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Theme: Smart Cities: Technology in Urban Design

[Pre-Conference Preliminary Round - The Portfolio](#)

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

- ☐ Title page with the event title, the conference city and state, the year, and the team ID number; one (1) page
- ☐ Table of contents; pages as needed
- ☐ Purpose of animation; one (1) page
- ☐ Images of a hand-sketched storyboard (no digital screen captures) that documents the flow and progression of the animation, with written notes; special effects, audio cues, dialogue, transitions, and scene duration should be incorporated into the storyboard; pages as needed
- ☐ Written description of what the animation illustrates or demonstrates; one (1) page
- ☐ List of references that includes sources for materials, copyrighted and otherwise; the term “Fair Use” and similar terms are not acceptable citations when creating the list of references; pages as needed
- ☐ Permission letters for copyrighted material; pages as needed
- ☐ List of software and hardware used in the development of the animation; one (1) page
- ☐ [Work Log](#) that indicates preparation for the event, as noted by date, task, time involved, team member responsible, and comments; pages as needed
- ☐ Completed [Student Copyright Checklist](#); one (1) page

CANNOTS

AI cannot be used to generate any content whatsoever.

Pre-Conference Preliminary Round - The Animation

MUSTS

1. The animation must be submitted in a common video format suitable for viewing with a VLC player, utilizing a Microsoft Windows operating system.
2. The URL must point to the main page of the team's entry. Entries that require a request for access to be granted will not be judged.
3. Each animation must advance automatically once it has been opened and started by judges.
4. Sound may accompany the animation, but it is not required.
5. All graphics, images (including background), and audio clips must be originally created by the participants.
6. Where applicable, all ideas, text, images, and sound from other sources must be cited.
7. If copyrighted material is used, proper written permission must be included in the documentation portfolio (see Student Copyright Checklist in 2026 & 2027 Forms Appendix).

CANNOTS

1. AI cannot be used to generate any content whatsoever.
2. Entries that require a request for access to be granted will not be judged.
3. The animation is not to exceed three (3) minutes in length.
4. Absolutely no purchased content may be used in any part of the animation. (Purchased content includes, but is not limited to, texture, models, and royalty free music.)
5. Purchased items from sites like PowToons and Animaker are not acceptable for this event.

OTHER CONSIDERATIONS

There will be a three (3)-point deduction for each fifteen (15) seconds, or fraction thereof, over the three (3)-minute maximum length. For example: An animation that runs 37 seconds beyond the three (3)-minute limit will receive a deduction of nine (9) points.

On-Site Semifinal Round - The Presentation

OTHER CONSIDERATIONS

Ten (10) minutes is allowed to make a presentation to the judges.

How

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Participants design and create a STEM animation video and documentation portfolio.
5. No more than two (2) representatives from each semifinalist team may report to the event area for the presentation at the time and place stated in the conference program.
6. Each semifinalist team explains its portfolio to the judges, discussing the purpose, value, research and design, and development process of its work.

Resources

- Khan Academy – Pixar in a Box: Free courses on storytelling, animation basics, and the math / science behind animation. [khanacademy.org](https://www.khanacademy.org)
- AnimateSpace: Free online tutorials for beginners focusing on animation basics. [Animate.space](https://www.animate.space)
- In addition, there are multiple free online tools to use to develop your animations, should you choose to use them.

Video Game Design

Who

2- 6 members per team
3 teams per chapter
12 teams will progress to the semifinals
based on their documentation portfolio
score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the
JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

Participants design, build, provide documentation for, and launch an E-rated, online game on a subject of their choice. Onsite at the conference, semifinalists deliver a presentation and participate in an interview to demonstrate the knowledge and expertise gained during the development of the game.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio <input type="checkbox"/> Video Game URL	<input type="checkbox"/> Presentation & Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Pre-Conference Preliminary Round - The Video Game URL

MUSTS

1. Must be a hyperlink to the online game.
2. Must be the original work of the team.
3. Work that is not created by the team must have proper documentation, showing copyright permissions and/or license for usage in the game segment.
4. Game instructions must be clear and understandable.
5. Judges must be able to play the game to the third (3rd) level.
6. The game submitted for evaluation must be greater than three (3) minutes in length of play and must be interactive.
7. The timing of the game segment starts with the first image or sound presented.
8. Games must be playable from the submission deadline until the end of the Arkansas TSA Conference.
9. Bonus points may be awarded for exceptional game features or content.

CANNOTS

The game must be free of any weapons or violence as stated in the general rules.

OTHER CONSIDERATIONS

1. A deduction of five (5) points total will be incurred for a game that completes in under the three (3)- minute time minimum.
2. The timing of the game segment starts with the first image or sound presented.
3. Games must be playable from the submission deadline until the end of the Arkansas TSA Conference.

Pre-Conference Preliminary Round - The Portfolio

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

- ☐ Title page with the event title, the conference city and state, the year, and the team's identification number; one (1) page
- ☐ Table of contents; pages as needed
- ☐ Purpose and description of the game, the target audience, including market research, explanation of how the game is unique, and a detailed explanation of how to play the game, including a list of control functions; two (2) pages
- ☐ A hand-drawn or digitally sketched storyboard that depicts the design concept of the video game (No screenshots of the game will be permitted as part of the storyboard); pages as needed
- ☐ A link to a video (a URL to a video hosted on a service of the team's choice that does not require any download or authorization), maximum two (2) minutes in length, of one (1) student demonstrating how to play the game with appropriate voiceover to include which buttons to press and actions to complete to make each move necessary to complete at least three (3) levels; one (1) page
- ☐ Completed [Student Copyright Checklist](#); one (1) page
- ☐ Permission letters for the use of copyrighted material, if applicable; pages as needed.
- ☐ [Work Log](#); pages as needed

CANNOTS

AI cannot be used to generate any content whatsoever.

On-Site Semifinal Round - The Presentation & Interview

MUSTS

1. Semifinalist teams report to the assigned time and place for the presentation/interview.
2. The team may bring one (1) device (laptop preferred) to be used by the team during the presentation. The laptop must be fully charged as no access to electricity will be provided. TSA will not provide access to WiFi or guarantee that a team provided hotspot will operate.
3. Participants make a presentation to the judges about their video game and respond to questions.
4. Judges will ask questions up to five (5) minutes following the presentation.

CANNOTS

1. No projection devices are permitted during the semifinal round.
2. Semifinalists do NOT have access to electrical power/outlets during the event.
3. The presentation shall not last longer than five (5) minutes.

OTHER CONSIDERATIONS

Ten (10) minutes are allowed for the on-site presentation and interview broken down as follows:

1. Five (5) minutes for the presentation
2. Five (5) minutes for the interview

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants design an online game based on the subject of their choice.
5. Participants record their process through a documentation portfolio.

On-Site Semifinal Round

6. The semifinalist team or individual reports to the event area for the presentation/interview.
7. Ten (10) minutes are allowed for the semifinal presentation and interview broken down as follows:
 - a. Five (5) minutes for the presentation
 - b. Five (5) minutes to respond to questions from judges

Website Design

Who

3-6 members per team
3 teams per chapter
12 teams will progress to the semifinals based on their documentation portfolio score.

Where

On-Site with a pre-conference submission.

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.
The on-site portion is on 3/4/26.

What

To address the annual challenge, participants design, build, provide documentation for, and launch a website that incorporates the elements of website design, graphic layout, and proper coding techniques. Semifinalists participate in a presentation/interview to demonstrate the knowledge and expertise gained during the development of the website.

Pre-Conference Preliminary Round	On-Site Semifinal Round
<input type="checkbox"/> Portfolio/URL	<input type="checkbox"/> Presentation <input type="checkbox"/> Presentation & Interview

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Design Brief: Community Story

2026 Challenge: Develop a website that captures the essence of your local community and shares stories, history, or significant events that have shaped your community. The website should include an interactive element (e.g., timeline, map, etc.) that the user can interact with to understand the history or stories of your community. According to the official rules, do not include school or chapter name.

[Pre-Conference Preliminary Round - The Portfolio/URL](#)

MUSTS

1. Participants must launch their entry on a web server that can be accessed via the Internet twenty-four (24) hours a day, seven (7) days a week, fifty-two (52) weeks per year.
2. Each entry must consist of web pages that specifically display the chapter’s solution to the middle school design brief.
3. The URL must point to the main page of the team’s entry. Entries that are password protected or require a request for access be granted will not be judged.
4. All web pages must be completed during the current school year. The solution to the design brief is developed as a series of web pages with a minimum of three (3) pages and no maximum of pages linked under the main design brief solution web page.
 - a. One (1) of the pages must list all sources of information used to create the website and be labeled as “Reference” on the website.
 - b. If copyrighted material, such as text, images, or sound from other sources is used, proper written permission must be included/documented on the “Reference” page.

- c. Participants must submit a completed Student Copyright Checklist (see 2026 & 2027 Forms Appendix) in PDF format as a link on the “Reference” page; one (1) page
- d. Participants also must include a completed Work Log (see 2026 & 2027 Forms Appendix) in PDF format as a link on the “Reference” page; pages as needed
5. All entries must be compatible using the latest versions of Microsoft Edge, Firefox, Chrome, etc. on a desktop/laptop computer.
6. In addition to basic HTML code, the website may contain HTML5 and other state-of-the-art web-based technologies (e.g. JavaScript, jQuery, Angular, etc.).
7. Framework systems, such as Drupal, Joomla, Wordpress, Bootstrap, or other current technologies may be used; however, pre-built templates and themes for these sites are not permissible. If a framework system is used, a statement affirming that the template or theme used on the framework was built by the team must be posted on the “Reference” page.
8. The website must be finished, submitted, and accessible via the Internet by 11:59 p.m. EST on a designated date in mid-May.
9. Changes made after submission will result in disqualification from the event.

CANNOTS

AI cannot be used to generate any content whatsoever.

On-Site Semifinal Round - The Presentation & Interview

MUSTS

1. The team may bring one device (laptop preferred) to be used by the team during the presentation. The laptop must be fully charged as no access to electricity will be provided. TSA will not provide access to WiFi or guarantee that a team provided hotspot will operate.
2. During the interview, the team must be prepared to discuss at a minimum:
 - a. Overall website design and originality
 - b. Design brief
 - c. The appropriate use of new Internet and web-based applications (different browsers, monitor resolution, plug-ins, etc.).

CANNOTS

1. No projection devices are permitted during the semifinal round.

OTHER CONSIDERATIONS

1. Ten (10) minutes are allowed for the on-site presentation and interview broken down as follows:
 - a. Five (5) minutes for the presentation
 - b. Five (5) minutes for the interview
2. Up to six (6) team representatives can participate in the presentation/interview.
3. The presentation is limited to five (5) minutes.

How

Overall

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.

Pre-Conference Preliminary Round

4. Participants design a website while observing the theme and design requirements.

On-Site Semifinal Round

5. Participants report at the assigned time and place for the presentation/interview.

Remote Only Competitions

For the events below, students will log into <https://judgepro.registtermchapter.com/org/jpar-tsastate/conf/jpar-tsastate/student> using their membership ID and the password set up by the chapter advisor in the [Conference Registration System](#). Students can log in and open the event at any time after their advisor has completed their chapter's registration for State Conference, but once the event is opened, it must be completed in the allotted amount of time. After the allotted amount of time, the submission window will close, so make sure students have a solid block of time to work. Submissions will automatically close at 11:59 pm on 1/14/2026 regardless of how much allotted time is left. Competitors should not be using any print or online resources to help.

Event	Portfolio?	Allotted Time	Abbreviation
Audio Podcasting	YES	N/A	APMS
CAD Foundations	NO (Ignore the	2 Hours (120 minutes)	CADMS
Technical Design	YES	N/A	TDMS

All uploads due January 14, 2026 at 11:59 pm

Documentation Format Guidelines

See this document for documentation formatting guidelines: [Documentation Guide](#). Make a copy of it and type your work into it without changing the format.

File Naming Conventions

Event Abbreviation_Chapter ID Number_Team Number

- Example*: *ADHS_2992_3.pdf*

Note: First 4 digits are the Chapter ID Number. In the example above ADHS_2992-3 the ADHS is the event (Architectural Design); 2992 is the school; and the 3 is the team number (team number 3). If you are unsure about your chapter ID and team number for the contest you are in, see your advisor.

For Students

Prepare your [Documentation Portfolio](#) as a single, multi-page PDF document and upload it at <https://judgepro.registtermchapter.com/org/jpar-tsastate/conf/jpar-tsastate/student>. Entries that require a software download or a request that access be granted will be disqualified. The PDF document is limited to a file size of 30mb or less. If your contest requires entering a URL, the URL must point directly to your team's entry. Unlisted YouTube videos are a great way to share videos and audio files.

For Advisors

You must select the "Export Judges System Student Submission Information" button from your state conference registration to access Membership IDs and contest passwords. (<https://www.registtermchapter.com/tsa/ar>). You may also elect to upload files and URLs on behalf of students at <https://judgepro.registtermchapter.com/org/jpar-tsastate/conf/jpar-tsastate>. Your log-in is the same as you used to register for the state conference.



This page was
intentionally left
blank(ish).

Audio Podcasting

Who

1-6 members per team
3 teams per chapter

Where

Remote

When

The [theme](#) was released on 8/15/2025.
All entries must be submitted to the JudgePro system by 11:59pm on 1/14/26.

What

Participants use digital audio technology to create original content for a podcast piece that addresses the annual theme. The podcast must feature high level storytelling techniques, voice acting, and folly sound effects. The full entry must include documentation of the podcast development process and elements.

Pre-Conference Round	On-Site Round
<input type="checkbox"/> Portfolio Upload <input type="checkbox"/> URL Upload	<input type="checkbox"/> N/A

This event will use only Tier 1 and Tier 2 of the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

2026 Theme: Students create an audio podcast reviewing/promoting a vacation destination.

Pre-Conference Round - The Podcast

MUSTS

- The audio piece must be more than one (1) minute and less than five (5) minutes in length.
 - A deduction of five (5) points total will be incurred for each fifteen (15) seconds under the one (1) minute minimum and for each fifteen (15) seconds over the five (5) minute maximum length.
 - The timing starts with the first sound and continues until the last sound ends.
- The audio podcast must be uploaded or located online and accessible for evaluation by the posted deadline.
 - The entry must point directly to the team’s entry. Entries that require a software download or a request that access be granted will not be judged.
 - Entries received, or changes made to submitted entries after this deadline will not be judged.
 - The URL must point directly to the audio file and not require any permissions or installation of software for evaluation.
- Music may accompany the audio piece but is not required.
- All audio pieces must be the original work of the team and must have been completed within the current school year.
- Free, non-copyrighted sounds, loops, or other audio elements may be incorporated into audio pieces. The sources of these elements and the way in which they are used in the audio piece must be described in the portfolio.
- Each actual and/or synthesized voice used in the final piece must be illustrated in a timeline format in the portfolio.
- Where applicable, all ideas, sounds, and loops from other sources must be cited. If copyrighted material is used, proper written permission must be included.
- Cover Art:
 - All entries must include a podcast cover art graphic (JPEG or PNG).
 - The graphic must fit a square ratio, set to 1400 x 1400 pixels.
 - The podcast cover art must be visible (attached) to the audio clip and visible when listening to the podcast.

9. It is suggested that the podcast be uploaded as an unlisted YouTube video (with comments turned off) with the Cover Art as the “video”.

CANNOTS

AI cannot be used to generate any content whatsoever.

OTHER CONSIDERATIONS

The audio podcast may include the first name of the students in the podcast and is exempt from the general rule that no identifying information may be used. However, students will not be allowed to use last names, their school name, or the state they are from.

Pre-Conference Round - The Portfolio

MUSTS

The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:

- ☐ Title page with the title of the audio piece, the event title, Chapter ID, the conference city and state, and the year; one (1) page
- ☐ Table of contents; pages as needed
- ☐ Podcast Cover Art. The graphic must fit a square ratio, set to 1400 x 1400 pixels.; one (1) page
- ☐ [Work Log](#); pages as needed
- ☐ Self-evaluation of the piece using criteria from the official rating form; pages as needed.
- ☐ Audio composition. Each actual and/or synthesized voice used in the final audio must be illustrated graphically using a timeline format; pages as needed
- ☐ When audio elements are used that were NOT created by the team, the source, effects applied, the way each element was incorporated into the audio piece and how each element corresponds to the audio must be included; pages as needed.
- ☐ List of hardware, software, and instruments used in the development of the audio piece; one (1) page
- ☐ List of references that includes sources for materials (non-copyrighted); pages as needed
- ☐ Completed [Student Copyright Checklist](#); one (1) page

CANNOTS

AI cannot be used to generate any content whatsoever.

How

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Participants design an original audio podcast piece.
5. Participants record their design process within a documentation portfolio.

Computer-Aided Design (CAD) Foundations

Who

5 individuals per chapter

Where

Fully Remote

When

The problem will be available from 12/1/25 - 1/14/26, but as soon as the problem is opened, the contestant has 2 hours to complete and submit their solution.

What

Participants demonstrate their understanding of CAD fundamentals by creating a two-dimensional (2D) graphic representation of an engineering part or object and answering questions from evaluators about their entry.

Pre-Conference Round	On-Site Semifinal Round
<input type="checkbox"/> The CAD Drawing	N/A

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Pre-Conference Remote Round - The Design

MUSTS

1. Participants find a two (2)- hour window of supervised work time at school. The work time must be proctored by an adult that is affiliated with the school.
2. Participants are given a design problem via JudgePro to solve in a two (2)-hour work session.
3. Participants work independently, without assistance from judges, teachers, fellow participants, or online resources.
4. Participants are advised to save their work on their hard drives every fifteen (15) minutes.
5. At the end of the session, participants save their work on their hard drives as a single multi-page PDF that includes the following views (one view per page):
 - a. Technical CAD drawings (including dimensions)
 - b. Top view
 - c. Side view
 - d. Front view
6. The PDF must be uploaded to JudgePro within two (2) hours of opening the scenario; submissions automatically lock after two hours and no extensions can be granted.
7. Pencils, scratch paper, and printed reference materials are allowed to be used.
8. Participants identify their work using only their student identification number.

CANNOTS

1. AI cannot be used to generate any content whatsoever.
2. Participants cannot share solutions to problems, reference materials, hardware, or software.
3. Participants cannot leave the event room without permission from their proctor. If a participant must use the restroom he/she is accompanied by an escort.

How

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Participants find a two (2)- hour window of supervised work time at school. The work time must be proctored by an adult that is affiliated with the school.
5. Participants are given a design problem via JudgePro to solve in a three (3)-hour work session.
6. Participants work independently, without assistance from judges, teachers, fellow participants, or online resources.
7. Participants are advised to save their work on their hard drives every fifteen (15) minutes.
8. At the end of the session, participants save their work on their hard drives as a single multi-page PDF that includes the following views (one view per page):
 - a. Technical CAD drawings (including dimensions)
 - b. Top view
 - c. Side view
 - d. Front view
 - e. Home view
 - f. Two other images of their choice (can be used to show off intricate or important features)
9. The PDF must be uploaded to JudgePro within two (2) hours of opening the scenario; submissions automatically lock after two hours and no extensions can be granted.

Technical Design

Who

2 members per team
3 teams per chapter

Where

Fully remote

When

The problem will be sent via email to advisors on 12/1/2025. Teams must upload their solutions by 11:59 PM on 1/14/2026.

What

Participants demonstrate their ability to use the technical design process to solve an engineering design problem provided onsite at the conference. Required elements of the entry are presented in a portfolio that includes technical drawings for a minimum of three viable solutions.

This event will use the official TSA rubric, which can be found in the “TSA Middle School Competitive Events Guide for the 2026 and 2027 National TSA Conferences” as linked in the [Student Member Site](#) and in the “Total TSA” tab of the [Advisor’s Affiliation Portal](#).

Pre-Conference Remote Round - Design Preparation

MUSTS

1. Students prepare a portfolio that includes each step of the technical design process loop. (Figure 1).
2. Students develop a problem statement interpretation of the problem provided.
3. The portfolio should show a logical progression from one step of the loop to the next.
4. The documentation portfolio must be submitted as a multi-page PDF document with pages in this order:
 - ☐ Title page with the event title, conference city and state, the year, and the team/chapter ID number; one (1) page
 - ☐ Table of contents; one (1) page
 - ☐ Team’s interpretation of the problem, including a list of criteria and constraints set forth in the design brief; one (1) page
 - ☐ Demonstrated use of a brainstorming technique of the team’s choice (mind mapping, reverse engineering, word association, etc.), to develop ideas to solve the problem; brainstorming ideas should be documented; one (1) page
 - ☐ At least three (3) hand-drawn sketches of different solution options to a given problem. Photo/scan/convert each to a PDF as necessary to insert into the portfolio PDF. One (1) page for each hand-drawn sketch; three (3) pages total
 - ☐ Each hand-drawn solution must be developed based on the selected brainstorming technique.
 - ☐ Each hand-drawn sketch also must include a solution pro/con list written on each sketch to aid in selecting the best design;
 - ☐ Label the first solution “Solution Option 1,” the second “Solution Option 2,” and the third “Solution Option 3.”
 - ☐ Based on the pro/con list for each of the hand-drawn solutions to the problem, select the best solution and create an engineering drawing based on the solution; one (1) page.
 - ☐ Using the engineering drawing of the final solution, write a paragraph that evaluates the final solution and answers the following question, “Does the final design meet all the elements set forth in the design brief?”; one (1) page.
 - ☐ A sample design brief is provided below to help students understand a typical engineering design problem for this event

CANNOTS

AI cannot be used to generate any content whatsoever.

Design Brief Sample

(This design brief is ONLY an example of the type of problem that participants may expect at the conference.)

Aircraft carriers are much shorter than a typical airport runway. How do aircraft manage to gain enough speed for takeoff over a much shorter distance? A catapult gives them the extra boost they need to take-off.

An elementary school teacher would like to use the basic principles of this technology to teach his/her students about kinetic and potential energy, but apply the same knowledge to launching a small paper airplane.

Design a hand-held paper airplane launcher that a classroom teacher can incorporate into a classroom lesson and have the students build as a class project.

Your solution must be able to be built by 5th grade students using materials and supplies that they can bring from home and incorporate a rubber band as the power source.

The solutions have a maximum length of 9", width of 8", and a height of 7".

The solution is contained in a documentation portfolio. A prototype or model is not allowed.

How

1. Participants access the [annual theme on the TSA website](#) under Themes & Problems.
2. Participants review the [TSA Honor Statement for Competitive Events](#) found in the General Rules and listed in this guide.
3. Participants review the [General Rules](#) and take them into consideration throughout the competition.
4. Teams decide on a 24- hour window of work time.
5. Participants are given a design problem via JudgePro to solve within 24 hours.
6. The PDF must be uploaded to JudgePro within 24 hours of opening the scenario; submissions automatically lock after 24 hours, and no extensions can be granted.
7. Participants identify their work using only their team identification number.
8. Teams follow the technical design process loop to solve the provided engineering design problem.
9. All work must be completed solely by the teams entered in this competition. No outside help is permitted.
10. Teams are responsible for submitting a portfolio PDF of their solution using the submission procedures provided in JudgePro.

Evaluation

PRE-CONFERENCE REMOTE ROUND

1. Each element of the portfolio
2. The overall technical design process

Refer to the official rating form for more information.