

Virginia TSA Competitive Events Addendum

***For Use at the 2023 Virginia TSA
Regional Conferences***

***An Addendum to the National TSA
2022-2023***

***Middle School Total TSA Guidelines
AND***

2023-2024

High School Total TSA Guidelines



Version 1, October 14, 2022

Virginia TSA 2022 - 2023 **Regional Fair** Events
MIDDLE and HIGH SCHOOL PROGRAM

10/14/2022

CODE	EVENT	NOTES
MS	CAD Foundations	<p>Three individual entries per chapter, one entry per individual</p> <p>Using the current middle school guide, participants have the opportunity to demonstrate their understanding of CAD fundamentals as they create a two-dimensional graphic representation of an engineering part or object. Students must provide all equipment, software and supplies. Students will login to the judges system at the scheduled time and place of this event for their regional fair. The scenario and submission button will be present for the student in the system.</p>
MS	Career Prep	<p>Five individual entries per chapter, one entry per individual</p> <p>Using the current middle school guide, design and produce a cover letter and a chronological or skills resume based on research. See National Themes and Problems (http://tsaweb.org/Themes-and-Problems) for Career Clusters. No semifinalist interview portion at Regional Fair. Students will be able to upload their work to the judges system beginning at noon the day before their Regional Fair through 8 AM the morning of their Regional Fair.</p>
MS	Challenging Technology Issues	<p>Three teams of 2 members per chapter, one entry per team</p> <p>Using the current middle school guide, participants prepare and deliver an extemporaneous, debate style presentation with team members. See National Themes and Problems (http://tsaweb.org/Themes-and-Problems). Students will report to the designated room for this event at their Regional Fair.</p>
MS	Community Service Video	<p>One team per chapter, 2-6 members per team, one entry per team</p> <p>Using the current middle school guide, create and submit a finished video that depicts a community service project of their choice. No semifinalist interview portion at Regional Fair. Students will be able to upload their work to the judges system beginning at noon the day before their Regional Fair through 8 AM the morning of their Regional Fair.</p>
MS	DigitalPhotography	<p>Five individual entries per chapter, one entry per individual</p> <p>Using the current middle school guide, participants produce an album consisting of color or black and white digital photographs that represent or relate to a chosen theme. The theme for 2023 is Patterns or Textures in Architecture. (No semifinalist portion at Regional Fair.) Students will be able to upload their work to the judges system beginning at noon the day before their Regional Fair through 8 AM on the day of their Regional Fair.</p>
MS	Dragster	<p>Five individual entries per chapter, one entry per individual</p> <p>Using the current middle school guide, design and produce a fast CO² powered dragster according to stated specifications and using certain specific materials. See National Themes and Problems http://tsaweb.org/Themes-and-Problems. Dragsters not meeting building tolerances specified in the 2022-2023 Total TSA shall be disqualified and will NOT be raced. No semifinalist interview at Regional Fair. Cars and drawings will be dropped off at the designated room of the Regional Fair building site determined by that particular Regional Fair team.</p>

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MS	Essays on Technology	Five individual entries per chapter, one entry per individual	Using the current middle school guide, participants conduct research in specified subtopics of a broader technological area. Participant turns in a comprehensive outline. The topic for the 2023 conference is located at: http://tsaweb.org/Themes-and-Problems Event time is one (1) hour. There will be no Semi-Finalist Portion at the Regional Fair. Students will login to the judges system at the scheduled time onsite of this event for their regional fair. The scenario and submission button will be present in the system. Students will upload their outline to the judges' system. Students will need a laptop or computer to compete in this event.
MS	Flight	Five individual entries per chapter, one entry per individual	Using the current middle school guide, participants create a glider that stays in flight for the greatest elapsed time. Glider will be launched from a catapult that is provided onsite. Students bring documentation portfolio with all components, and assembled glider for testing to their onsite Regional Fair location on the date and time given by their specific Region. No semifinal portion at Regional Fair.
MS	Prepared Speech	Five individual entries per, chapter, one entry per individual	Using the current middle school guide, participants deliver an oral presentation that reflects the theme. Theme for 2023 is: A Legacy of Innovation. Students will be able to give their speech at the designated room and time onsite determined by each individual regional fair.
MS	Promotional Marketing	Five individual entries per chapter, one entry per individual	Using the current middle school guide, participants create a three-part TSA Marketing Toolkit that must include items specified in the national Themes and Problems. See National Themes and Problems (http://tsaweb.org/Themes-and-Problems). There will be no Semi-Finalist Portion at Regional Fair. Students will be able to upload their work to the judges system beginning at noon the day before their Regional Fair through 8 AM on the day of their Regional Fair.
MS	STEM Animation	Five teams per chapter one entry per team, 1-6 members per team	Using the current middle school guide, participants use computer graphic tools and design processes to communicate, inform, analyze and/or illustrate a topic, idea, subject or concept. (No semifinalist portion will be held at Regional Fair.) Students will be able to upload their work to the judges system beginning at noon the day before their Regional Fair through 8 AM on the day of their Regional Fair.
MS	Structural Engineering	Two teams of 2 members per chapter, one entry per team	Using the current middle school guide, participants apply the principles of structural design and engineering through basic research, design, construction and destructive testing to determine the design efficiency of the structure. Students will drop off their Pre-Built structure to an onsite location chosen by their particular Regional Fair. See National Themes and Problems for the design brief and team verification forms and other needed information. (http://tsaweb.org/Themes-and-Problems).
MS	System Control Technology	Two teams of 3 members per chapter, one entry per team	Using the current middle school guide, participants use a team approach to develop a computer controlled model solution to a given problem, typically one from an industrial setting. Teams must provide all equipment. Problem will be provided to the teams at the designated room for this event at their Regional Fair. This event will happen in the room designated by their particular Regional Fair. No interview portion at Regional Fair.

MIDDLE and HIGH SCHOOL PROGRAM

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Check the Virginia TSA Website for updated versions of the Addendum

Virginia TSA 2022 - 2023 Regional Fair Events
MIDDLE and HIGH SCHOOL PROGRAM

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HS	Board Game Design	Two team per chapter, 2-8 members per team, one entry per team	Using the current high school guide, develop, build and package a board game that focuses on the subject of your choice. The game should be interesting, exciting, visually appealing and intellectually challenging. No semifinals at Regional Fair. Students will drop off all documentation and the game at the onsite location provided by their Regional Fair.
HS	CAD Architecture	Five individual entries per chapter, one entry per individual	Using the current high school guide, students must provide all equipment, software and supplies. The event time limit will be two (2) hours. Students will report to the location provided by their Regional Fair to do this event, problem will be provided then.
HS	CAD Engineering	Five individual entries per chapter, one entry per individual	Using the current high school guide, students must provide all equipment, software and supplies. The event time limit will be two (2) hours. Students will report to the location provided by their Regional Fair to do this event, problem will be provided then.
HS	Debating Technological Issues	Three teams of two members per chapter, one entry per team	Using the current high school guide, teams will be instructed to take the Pro or Con side of the selected subtopic. The theme for 2023 is: Social Media and Society. See National Themes and Problems for subtopics (http://tsaweb.org/Themes-and-Problems). Students will report to the designated room for this event provided by their Regional Fair.
HS	Digital Video Production	Three team entries per chapter, 2-8 members per team, one entry per team	Using the current high school guide, participants develop a digital video/film that focuses on the given year's theme. The theme for 2023 is Promote a Good Cause in Your Community. No Semifinalist portion will be held at Regional Fair. Students will be able to upload their work to the judges' system beginning at noon the day before their Regional Fair through 8 AM the morning of their Regional Fair.
HS	Dragster Design	Five individual entries per chapter, one entry per individual	Using the current high school guide, participants design, produce working drawings for, and build a CO ₂ - powered dragster. Dragsters not meeting building tolerances specified in the 2022-2023 Total TSA guide shall be disqualified and will NOT be raced. No semifinalist portion at Regional Fair. Cars and drawings will be dropped off onsite to a specific location that will be announced by each Regional Fair.
HS	Essays on Technology	Five individual entries per chapter, one entry per individual	Using the current high school guide, participants will write a synthesis essay to make insightful connections based on a current technological topic. Participants will be provided with a prompt and a series of two (2) or more articles on a current technological topic. There will be a 90 minute Time Limit. Students will login into the judge system onsite at the scheduled time of this event for their regional fair. The scenario and submission button will be present in the system.
HS	Extemporaneous Speech	Five individual entries per chapter, one entry per individual	Using the current high school guide, participants give a three to five (3-5) minute speech on a topic provided. Students will report to the designated room provided by their Regional Fair to participate in this event.
HS	Flight Endurance	Five individuals per chapter, one entry per individual	Using the current high school guide, participants analyze flight principles with a rubber band powered model aircraft. Student's models must be built and test flown before the Regional Fair. Students must provide documentation portfolio and model. Refer to 2022-2023 Total TSA Guide. Students bring documentation portfolio with all components, and assembled aircraft for

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HS	Manufacturing Prototype	Three teams per chapter, 2-6 members per team, one entry per team	<p>testing to their Regional Fair location. That room will be determined by the individual Regional Fair. No semifinal portion at Regional Fair.</p> <p>Using the current high school guide, participants design, fabricate, and use Computer Integrated Manufacturing (CIM) to create a product that addresses the annual theme found on the TSA website under Themes and Problems. See National Themes and Problems (http://tsaweb.org/Themes-and-Problems) for 2023 theme. No semifinal sales pitch at Regional Fair. Prototype and documentation will be dropped off onsite to a specific location that will be announced by each Regional Fair.</p>
HS	Music Production	Three teams per chapter, 2-8 members per team, one entry per team	<p>Using the current high school guide, participants produce an original musical piece that is designed to be played during the national TSA conference opening or closing general session. No semifinalist interview portion at Regional Fair. Students will be able to upload their work to the judges' system beginning at noon the day before their Regional Fair through 8 AM the morning of their Regional Fair.</p>
HS	Photographic Technology	Five individual entries per chapter, one entry per individual	<p>Using the current high school guide, participants capture images and process photographic and digital prints that convey a message. See National Themes and Problems (http://tsaweb.org/Themes-and-Problems) for 2023 theme. No semifinalist portion at Regional Fair. Students will be able to upload their work to the judges' system beginning at noon the day before their Regional Fair through 8 AM the morning of their Regional Fair.</p>
HS	Prepared Presentation	Five individual entries per chapter, one entry per individual	<p>Using the current high school guide, participants deliver an oral presentation, using a digital slide deck, on the current National TSA conference theme. Students will report to the room determined by their Regional Fair at the scheduled time the day of the Regional Fair to do their presentation.</p>
HS	Promotional Design	Five individual entries per chapter, one entry per individual	<p>Using the current high school guide, participants use computerized graphic communication layout and design skills in the production of a promotional resource for TSA. See National Themes and Problems (http://tsaweb.org/Themes-and-Problems). No Semifinalist portion at the Regional Fair. Students will be able to upload their work to the judges' system beginning at noon the day before their Regional Fair through 8 AM the morning of their Regional Fair.</p>
HS	Structural Design and Engineering	Two teams of 2 members per chapter, one entry per team	<p>Using the current high school guide, participants apply the principles of structural design and engineering through basic research, design, construction and destructive testing to determine the design efficiency of the structure. Students will drop off their Pre-Built structure to an onsite location chosen by their particular Regional Fair. See National Themes and Problems for the design brief and team verification forms and other needed information. (http://tsaweb.org/Themes-and-Problems).</p>

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HS	SystemControl Technology	Two teams of 3 members per chapter, one entry per team	Using the current high school guide, participants work as part of a team to develop a computer-controlled model solution to a problem. Students will have 2 (two) hours to work. Teams must provide all equipment needed to participate in this event. Problem will be provided onsite. This event will happen in the room designated by their particular Regional Fair. No semifinal portion interview will take place at Regional Fair
HS	Transportation Modeling	Five individual entries per chapter, one entry per individual	Using the current high school guide, participants use engineering skills to design and fabricate a scale model of a vehicle. See National Themes and Problems (http://tsaweb.org/Themes-and-Problems). Students will be able to turn in their model and documentation at the onsite location room and time chosen by their Regional fair.
HS	Video Game Design	Three teams per chapter, 2-8 members per team, one entry per team	Using the current high school guide, participants develop a game that focuses on the idea of their choice based on the posted theme. The game should be interesting, exciting, visually appealing, and intellectually challenging, with high artistic, educational, and social value. The game must be appropriate for the TSA community, and in good taste. See National Themes and Problems (http://tsaweb.org/Themes-and-Problems). No semifinalist interview/game demonstration portion at Regional Fair. Students will be able to upload their work to the judges' system beginning at noon the day before their Regional Fair through 8 AM the morning of their Regional Fair.

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