

FUTURE TECHNOLOGY AND ENGINEERING TEACHER



OVERVIEW

As the need for student proficiency in technology (as one area of STEM) is increasing, so is the need for qualified technology education teachers. Technology is moving at a rapid rate and those expected to teach are also expected to adopt this technology as fast as it's developed. Applying leadership and 21st century skills, participants research and prepare a video showing an application for the classroom and create a lesson plan/activity that correlates to the standards for technological literacy utilizing the application. (Use the International Technology and Engineering Educators Association ITEEA website at www.iteea.org for more information about the technology standards.) Topics also should reflect Science, Technology, Engineering, and Mathematics (STEM) initiatives and integration. Lesson plans/activities that explore knowledge, creativity, and skills in the following areas are suggested:

- Medical technology
- Agricultural and biotechnology
- Power and energy technology
- Information and communication technology
- Transportation technology
- Manufacturing technology
- Construction technology

Semifinalists communicate their design process through participation in a semifinal interview.

ELIGIBILITY

Three (3) individuals per chapter may participate.

TIME LIMITS

PRE-CONFERENCE/PRELIMINARY ROUND

- A. All components of the chapter's entry must be finished, submitted, and accessible via the Internet by 11:59 p.m. ET on a designated date in mid-May.
- B. The video cannot exceed a duration of more than eight (8) minutes.

- C. A deduction of five (5) points will be applied to videos exceeding the time limit.
- D. There is no minimum length restriction.
- E. The video is timed from the first sound or picture to the final sound or picture.

SEMIFINAL ROUND

- A. Semifinalists present their lesson plan to the judges, which lasts no more than seven (7) minutes including time for judges questions.
- B. Semifinalists have ten (10) minutes for the presentation broken down as follows:
 1. Seven (7) minutes or less for the lesson demonstration
 2. Three (3) minutes to answer questions from the judges
- C. One (1) point will be deducted for each ten (10)-second interval over the allotted time for the semifinal presentation.

ATTIRE

TSA competition attire is required for this event.

PROCEDURE

PRE-CONFERENCE/PRELIMINARY ROUND

- A. In preparation for this event, participants thoroughly research and select one (1) developed application that teachers can use in a classroom lesson.
- B. Participants create an instructional video demonstrating the functionality of the product and discussing how it can be used in a classroom lesson.
- C. Participants submit the video by 11:59 p.m. ET on a designated date in mid-May.
- D. Submission information is provided on the [TSA website](#) under *Competition Updates*.
- E. A list of twelve (12) semifinalists (in random order) is posted.

SEMIFINAL ROUND

- A. In preparation for the semifinal round, participants prepare a seven (7) minute lesson plan presentation demonstrating their lesson plan/activity.
- B. Participants report at the time and place stated in the conference program to sign up for a scheduled time to present the video of his/her lesson plan/activity.
- C. Participants report at the assigned time and place for the presentation/interview.
- D. Participants respond to questions pertaining to their entry.
- E. Participants have ten (10) minutes for the presentation broken down as follows:
 - 1. Seven (7) minutes or less for the lesson demonstration
 - 2. Three (3) minutes to answer questions from the judges
- F. The top ten (10) finalists are announced during the awards ceremony.

REGULATIONS AND REQUIREMENTS

Students will work to develop their leadership and 21st century skills in the process of preparing for and participating in this TSA competitive event. The development and application of those skills must be evident in their submission, demonstration, and/or communication pertaining to the entry.

PRE-CONFERENCE/PRELIMINARY ROUND

- A. Instructional Video:
 - 1. Participants design a video with the following in mind: The purpose of the instructional video is to introduce and explain the concept being taught and the method in which the content will be delivered along with extension activities and assessment.
 - 2. Identification of any kind may not be used in the video with the exception of the chapter's identification number.

- 3. Timing:
 - a. The video cannot exceed eight (8) minutes.
 - b. A deduction of five (5) points will be applied to videos exceeding the time limit.
 - c. There is no minimum length restriction.
 - d. The video is timed from the first sound or picture to the final sound or picture.
- 4. Copyright:
 - a. If the entry contains images of people that are not part of the application, proof of consent must be provided for each person in the video.
 - i. Minors require parental consent.
 - ii. Use the Photo/Film/Video Consent and Release form (see Forms Appendix) for any individuals included in the video footage.
 - iii. Participants must scan each completed consent form and save it as one mutlipage PDF file to be submitted pre-conference.
 - iv. The screencast instructional video must state the application being used and cite the application in the credits or the introduction.
- 5. Submission:
 - a. Participants may choose any video hosting site (such as an UNLISTED YouTube URL), or a shareable link in cloud storage, as long as the video is located online and accessible for evaluation.
 - b. If a URL is provided, 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.
 - c. Entries received, or changes made to submitted entries after the deadline will not be judged.
- 6. Entries must be the result of the participant's own efforts and not purchased or open source material.

SEMIFINAL ROUND**A. Lesson Plan Presentation**

1. Participants design and create a lesson plan presentation.
2. Participants describe the rationale, goals and objectives, standards correlation, and a description of the lesson and activity, including the assessment, as well as handouts, materials, and resources to be distributed to the judges (copies for each judge are required).
3. The ITEEA Standards for Technological Literacy must be used.
4. The lesson plan presentation must acknowledge the grade level for which it is intended.
5. Timing:
 - a. The presentation cannot exceed seven (7) minutes.
 - b. There is no minimum length restriction.
 - c. The presentation is timed from the first sound or voice to the final sound or voice.
 - d. The lesson plan presentation must include any applications being used and cite the applications in the credits or the introduction.

B. Entries must be the result of the participant's own efforts and not purchased or open source material.

C. Five (5) points will be deducted for presentations exceeding the time limit.

D. One (1) point will be deducted for each ten (10)-second interval over the allotted presentation time.

EVALUATION**PRELIMINARY ROUND**

A. The instructional video

SEMIFINAL ROUND

A. The presentation

Refer to the official rating form for more information.

STEM INTEGRATION

This event aligns with the STEM (Science, Technology, Engineering, and Mathematics) educational standards.

LEADERSHIP AND 21ST CENTURY SKILLS DEVELOPMENT

This event provides opportunity for students to build and develop leadership and 21st century skills including but not limited to:

- Communication
- Collaboration/Social Skills
- Initiative
- Problem Solving/Risk Taking
- Critical Thinking
- Perseverance/Grit
- Creativity
- Relationship Building/Teamwork
- Dependability/Integrity
- Flexibility/Adaptability

CAREERS RELATED TO THIS EVENT

This competition has connections to one (1) or more of the careers below:

- Technology education teacher
- STEM teacher
- University professor
- Professional development trainer

FUTURE TECHNOLOGY AND ENGINEERING TEACHER

2023 & 2024 OFFICIAL RATING FORM

HIGH 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.

- ☐ Video entry was submitted Pre-conference
☐ ENTRY NOT EVALUATED

INSTRUCTIONAL VIDEO (80 points)				Record scores in the column spaces below.
CRITERIA	Minimal performance 1-4 points	Adequate performance 5-8 points	Exemplary performance 9-10 points	
Introduction (X1)	The introduction is weak, with little effort made to emphasize the topic and/or to generate interest and enthusiasm for the topic.	Sufficient effort is evident in the introduction, which somewhat creates a level of interest.	The introduction is effective, stimulating, and creates interest on the part of observers.	
Continuity and Pacing (X1)	Sequencing in the video is incomprehensible and does not flow with the instructions; shots are left too long; edit points have glitches.	Pace and timing of the video are somewhat structured and flow with the instructions; clips move appropriately; moderate use of transitions is evident.	Shots logically pace the instructional video in an interesting and effective way; excellent and purposeful use of transitions is evident.	
Application Instructions (X1)	Instructions on how to use the application are unclear.	Instructions on how to use the application are somewhat clear.	Instructions on how to use the application are very clear and easy to follow.	
Application Relevance (X1)	The chosen application is not appropriate for teaching.	The chosen application is somewhat appropriate for teaching.	The chosen application is applicable to teaching and appropriate for students.	
Lesson Plan (X1)	Participant makes no mention about how the application can be used in a lesson.	Participant mentions how the application can be used in a lesson during the instructional video.	Participant briefly discusses several ways that the lesson can be used during instruction.	
Creativity (X2)	The instructional video lacks creativity; participant does not generate excitement for the product.	The instructional video is somewhat creative and generates some excitement for the product.	The instructional video is very creative and generates excitement for the product.	
Voice/Language (X1)	The participant conveys an inconsistent use of proper grammar, word pronunciation, and acceptable pitch and tone.	The participant generally uses proper grammar and pronunciation, and varies the use of tone and pitch.	The participant uses smooth and effective articulation, proper grammar, correct pronunciation, and varied tone and pitch throughout the presentation.	
INSTRUCTIONAL VIDEO SUBTOTAL (80 points)				

TIME DEDUCTIONS			
A five (5) point deduction will be incurred for videos exceeding the time limit.			
Total time for presentation			
Presentation deduction			
TOTAL TIME DEDUCTION			

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 (80 points)	
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SEMIFINAL LESSON PLAN PRESENTATION (100 points)				Record scores in the column spaces below.
CRITERIA	Minimal performance 1-4 points	Adequate performance 5-8 points	Exemplary performance 9-10 points	
Organization (X1)	The presentation lacks organization; it is difficult to follow or understand.	The presentation is somewhat organized.	The presentation is clearly organized and easy to follow; it flows smoothly to the conclusion.	
Lesson Components (X2)	The lesson is missing several of the stated components, including the standards correlation and/or instructional design focus; it is not creative or unique.	The lesson includes all of the stated components, and it is adequately organized, with an instructional design focus; it has some unique and creative aspects.	The lesson includes all of the stated components; it is well organized and has an instructional design focus; it is creative and unique.	
Introduction (X1)	The introduction is weak, with little effort made to emphasize the topic and/or to generate interest and enthusiasm for the topic.	Sufficient effort is evident in the introduction, which creates some level of interest.	The introduction is effective, stimulating, and creates interest on the part of observers.	
Instructional Competence (X2)	The presenter's delivery of content lacks confidence; leadership and/or 21 st century skills are not evident.	The presenter's delivery of content is generally professional and enthusiastic; leadership and/or 21 st century skills are somewhat evident.	The presenter's delivery of content is professional, enthusiastic, confident, and full of personality; leadership and/or 21 st century skills are clearly evident.	
Voice/Language (X1)	The participant conveys an inconsistent use of proper grammar, word pronunciation, and acceptable pitch and tone.	The participant generally uses proper grammar and pronunciation, and varies the use of tone and pitch.	The participant uses smooth and effective articulation, proper grammar, correct pronunciation, and varied tone and pitch throughout the presentation.	
Innovation/Creativity (X2)	The presentation fails to convey innovation or originality.	The presentation is somewhat original and innovative in its delivery and topic development.	The presentation is imaginative and innovative in its delivery and topic development.	

SEMIFINAL LESSON PLAN PRESENTATION (100 points) – continued					
Knowledge (X1)	Minimal knowledge of the subject is evident in the presentation; the content does not relate to the topic, and/or the participant does not convey an understanding of the topic.	Knowledge of the subject is evident, and the presenter relates and conveys a somewhat clear understanding of the topic.	Complete knowledge and understanding of the subject and relationship to the topic are conveyed throughout the lesson.		
SEMIFINAL LESSON PLAN PRESENTATION SUBTOTAL (100 points)					

TIME DEDUCTIONS			
Five (5) points will be deducted to videos exceeding the time limit.			
	Total time		
	Video deduction		
One (1) point will be deducted for each ten (1)-second interval over the allotted time for the semifinal presentation.			
	Total time		
	Presentation deduction		
TOTAL TIME DEDUCTION			

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 (100 points)	
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To arrive at the TOTAL score, add any subtotals and subtract rules violation points, as necessary.	TOTAL (180 points)	
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<p>Comments:</p> <p>I certify these results to be true and accurate to the best of my knowledge.</p> <p>JUDGE</p> <p>Printed name: _____ Signature: _____</p>

FUTURE TECHNOLOGY AND ENGINEERING TEACHER EVENT COORDINATOR INSTRUCTIONS

PERSONNEL

- A. Event coordinator
- B. Judges:
 - 1. Preliminary round, two (2) or more
 - 2. Semifinal round, two (2) or more (preferably the same judges as the preliminary round)
- C. Assistants, two (2)

MATERIALS

- A. Coordinator's packet, containing:
 - 1. Event guidelines, one (1) copy for the coordinator and for each judge
 - 2. TSA Event Coordinator Report
 - 3. List of judges/assistants
 - 4. Stopwatch
 - 5. Results envelope
- B. Tables and chairs for participants and judges
- C. Copy of ITEEA publication *Standards for Technological Literacy*

RESPONSIBILITIES

PRE-CONFERENCE

- A. National TSA will collect entries until 11:59 p.m. ET on a designated date in mid-May and send out receipt confirmations to participants. The results are shared with the CRC manager, event coordinator, and assigned judges.
- B. Review entries as they are submitted to the designated online storage utility.
- C. Manage communication and Pre-conference evaluation (at least two [2] or more judges should be recruited earlier in the year). Coordinate with National TSA and/or the Judge Manager.

AT THE CONFERENCE

- A. Attend the mandatory coordinator's meeting at the designated time and location.
- B. Report to the CRC room and check the contents of the coordinator's packet.

- C. Review the event guidelines and check to see that enough personnel have been scheduled.
- D. Inspect the area or room in which the event is being held for appropriate set-up, including room size, chairs, tables, outlets, etc. Notify the event manager of any potential problems.
- E. At least one (1) hour before the event is scheduled to begin, meet with judges to review time limits, procedures, regulations, evaluation, and all other details related to the event. If questions arise that cannot be answered, speak to the event manager before the event begins.

PRELIMINARY ROUND

- A. On the first full day of competition, post a list of the twelve (12) semifinalists in random order.

SEMIFINAL ROUND

- A. Participants report at the time and place stated in the conference program to sign up for a presentation/interview time.
- B. Participants report at the assigned time to the place stated, with the hard copies of the handouts/resources (if applicable), for the presentation/interview.
- C. Manage completion of the on-site lesson plan presentation and interviews.
- D. Decisions about rules violations must be discussed and verified with the judges, event coordinator, and the CRC manager to determine either:
 - 1. To deduct twenty percent (20%) of the total possible points in this round
 - 2. To disqualify the entry
 The event coordinator, judges, and CRC manager must initial either of these actions on the rating form.
- E. Judges determine the ten (10) finalists and discuss and break any ties.
- F. Submit the finalist results and all related forms in the results envelope to the CRC room.
- G. If necessary, manage security and the removal of materials from the event area.