

# 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 advancing at a rapid rate and teachers are expected to adopt this technology as fast as it's developed. Applying leadership and 21st century skills, participants create a portfolio demonstrating their interest and aptitude for the teaching profession, which will include a lesson plan and accompanying activity that incorporate standards of technological literacy. Semifinalists engage the judges with the proposed activity. (Use the International Technology and Engineering Educators Association ITEEA website at [www.iteea.org](http://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

## ELIGIBILITY

Three (3) individuals per chapter may participate.

## PROCEDURE

### PRE-CONFERENCE/PRELIMINARY ROUND

- In preparation for this event, participants thoroughly research and select two (2) educational technologies or applications that can be integrated into the classroom.
- Participants assemble a portfolio containing their research on educational technologies/applications, a lesson plan incorporating ITEEA standards, and an activity that accompanies their lesson.
- Participants submit their portfolio by 11:59pm ET on a designated date in.
- Submission information is provided on the [TSA website](#) under **Competition Updates**.
- A list of the twelve (12) semifinalists (in random order) will be posted on the first full day of the conference.

### LEADERSHIP AND 21ST CENTURY SKILLS

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, and Flexibility/Adaptability

### SEMIFINAL ROUND

- A. In preparation for the semifinal round, participants prepare a seven (7) minute presentation demonstrating their activity.
- B. Participants report at the time and place stated in the conference program to sign up for a scheduled time to present the activity.
- C. Participants report at the assigned time and place for the presentation.
- D. Participants respond to questions pertaining to their entry.
- E. Participants have fifteen (15) minutes for the presentation (and responses to judge questions) broken down as follows:
  - 1. Three (3) minutes or less to set-up/prepare materials for the activity.
  - 2. Seven (7) minutes or less to present the activity.
  - 3. Three (3) minutes to answer questions from the judges.
  - 4. Two (2) minutes to breakdown and remove materials.
- 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, presentation, and/or communication pertaining to the entry.

### PRE-CONFERENCE/PRELIMINARY ROUND

- A. Documentation materials (comprising “a portfolio”) are required and should be compiled into a single PDF file for submission. The portfolio must include the following pages, in this order:
  - 1. Title page with the event title, the conference city and state, the year, and the participant’s identification number; one (1) page
  - 2. Table of contents; pages as needed

- 3. Research summaries; one (1) page maximum for each technology/application
- 4. Personal essay; one (1) page
- 5. Lesson plan/activity; pages as needed
- 6. Copies of handouts; pages as needed
- 7. References and resources; pages as needed
- 8. Student copyright checklist (see Forms Appendix); one (1) page
- 9. Consent and Release Forms – Recognizable individuals pictured in any images (minors require parental consent) must give their written consent before the images can be used in this event (see Photo/Film/Video Consent and Release Form in Forms Appendix); pages as needed

#### B. Research Summary

- 1. Using no more than two (2) pages, one (1) side only, participants summarize the information derived from the research about each of the two (2) educational technologies or applications selected.
- 2. Participants should take into consideration the cost, intended age, and feasibility of the technologies/applications.

#### C. Essay

- 1. Each participant must complete an essay, one (1) page (single-sided), explaining three (3) traits that a technology or engineering teacher should possess and why those specific characteristics are important.
- 2. The essay must be typewritten and free of spelling and grammatical errors.

#### D. Lesson Plan

- 1. A lesson plan describing the rationale, goals and objectives, standards correlation, and a description of the lesson and activity—including assessment—must be submitted.
- 2. The lesson plan must be clearly labeled with the grade level for which it is intended.
- 3. The ITEEA Standards for Technological Literacy must be used. Available online at [www.iteea.org/Publications/StandardsOverview.aspx](http://www.iteea.org/Publications/StandardsOverview.aspx)

- E. The research summaries, essay, and lesson plan/activity must be the result of the participant's own efforts and not purchased or open source material. General content from either may be used, but it must be cited in MLA format.
- F. The font size for any documentation component should be no less than size 10.

### **SEMIFINAL ROUND**

#### **A. Activity Presentation**

1. Participants design and create a presentation to walk judges through the proposed activity.
2. Participants describe the rationale, goals and objectives, standards correlation, and a description of the lesson and activity.
3. The ITEEA Standards for Technological Literacy must be used.
4. The activity presentation must acknowledge the grade level for which it is intended.
5. Activity Presentation timing:
  - a. The presentation cannot exceed seven (7) minutes.
  - b. There is no minimum length restriction.
  - c. The activity 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. Audio-visual materials such as charts, graphs, posters, displays, flip charts, transparencies, and models may be used.
- D. Any audio visual equipment required for the presentation must be provided by the participant, including power strip with surge protector and extension cord.

- E. Participants are not allowed to watch or hear the presentations of other participants.
- F. Participants are encouraged to interact with the judges, who will act as students in the classroom.
- G. One (1) point will be deducted for each ten (10)-second interval over the allotted time for the presentation, set up, and/or clean-up.

### **EVALUATION**

#### **PRELIMINARY ROUND**

- A. The documentation portfolio

#### **SEMIFINAL ROUND**

- A. The presentation/interview

Refer to the official rating form for more information.

### **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, a rules violation of twenty percent (20%) will be incurred.

### **STEM INTEGRATION**

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

Participant/Team ID#

# FUTURE TECHNOLOGY AND ENGINEERING TEACHER

## 2026 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.

- ☐ Portfolio PDF was submitted Pre-conference  
☐ ENTRY NOT EVALUATED

PRELIMINARY DOCUMENTATION PORTFOLIO (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	
<b>Portfolio components</b> (X1)	Portfolio is unorganized and/or is missing three (3) or more components.	Portfolio has most components and is generally organized per the order of the event guide listing; it has sufficient content.	All components are included in the portfolio; content and organization per the order of the event guide listing are excellent.	
<b>Research Summaries</b> (X1)	Only one (1) educational technology/ application is identified; the summary is inadequate.	Two (2) educational technologies/ applications are adequately summarized.	Two (2) educational technologies/ applications are documented, with excellent summaries.	
<b>Personal Essay</b> (X1)	The essay is too short, and/or not typewritten, and/or poorly written, and/or there are many spelling and grammatical errors.	The essay is generally well written, typewritten and the correct length, but it contains some spelling and grammatical errors.	The essay is well written, typewritten, the correct length, and contains little to no spelling or grammatical errors.	
<b>Lesson Plan Components</b> (X2)	The lesson plan is missing several of the stated components, including the standards correlation and/or instructional design focus; it is not creative or unique.	The lesson plan 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 plan includes all of the stated components; it is well organized and has an instructional design focus; it is creative and unique.	
<b>Handouts, Assessments, and Activity</b> (X1)	Additional materials are poorly developed and do not have an impact on the lesson.	Additional materials are relatively well developed and have some impact on the lesson.	Additional materials are effective and greatly impact the lesson.	
<b>Creativity</b> (X1)	The submitted lesson plan demonstrates little creativity. The additional materials lack unique or original perspectives of the chosen topic.	The submitted lesson plan demonstrates adequate creativity. The additional materials convey some unique or original perspectives of the chosen topic.	The submitted lesson plan demonstrates exceptional creativity. The additional materials frame the topic in a unique and original way.	
<b>Resources and References</b> (X1)	A minor attempt is made to document resources and references.	Several resources and references are documented.	There is clear evidence of many applicable resources and references.	
PRELIMINARY DOCUMENTATION PORTFOLIO SUBTOTAL (80 points)				

## FUTURE TECHNOLOGY AND ENGINEERING TEACHER

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)

### SEMIFINAL ACTIVITY PRESENTATION (100 points)

CRITERIA	Minimal performance	Adequate performance	Exemplary performance
	1-4 points	5-8 points	9-10 points
<b>Organization</b> (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.
<b>Activity Components</b> (X2)	The activity is missing several of the stated components, including the standards correlation and/or instructional design focus; it is not creative or unique.	The activity includes all of the stated components, and it is adequately organized, with an instructional design focus; it has some unique and creative aspects.	The activity includes all of the stated components; it is well organized and has an instructional design focus; it is creative and unique.
<b>Introduction</b> (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.
<b>Instructional Competence</b> (X2)	The presenter's delivery of content lacks confidence; leadership and/or 21st century skills are not evident.	The presenter's delivery of content is generally professional and enthusiastic; leadership and/or 21st century skills are somewhat evident.	The presenter's delivery of content is professional, enthusiastic, confident, and full of personality; leadership and/or 21st century skills are clearly evident.
<b>Voice/Language</b> (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.
<b>Innovation/Creativity</b> (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.
<b>Knowledge</b> (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.
<b>SEMIFINAL ACTIVITY PRESENTATION SUBTOTAL (100 points)</b>			

Record scores  
in the column  
spaces below.

TIME DEDUCTIONS	
One (1) point will be deducted for each ten (10)-second interval over the allotted time for the semifinal presentation.	
Total time	
Presentation deduction	
<b>TOTAL TIME DEDUCTION</b>	
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: _____	
<b>SEMIFINAL SUBTOTAL (100 points)</b>	
<b>To arrive at the TOTAL score, add any subtotals and subtract rules violation points, as necessary.</b>	
<b>TOTAL (180 points)</b>	

Comments:

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

**JUDGE**

Printed name: \_\_\_\_\_ Signature: \_\_\_\_\_

# **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
- B. Stopwatch
- C. Tables and chairs for participants and judges
- D. Access to an AC electrical outlet
- E. Copy of ITEEA publication *Standards for Technological Literacy*

## **RESPONSIBILITIES**

### **PRE-CONFERENCE**

- A. National TSA will collect entries until 11:59pm 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.
- F. Ensure the judges have access to the online judging system.

### **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 supplies/materials (if applicable), for the presentation/interview.
- C. Manage completion of the on-site activity 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 entryThe event coordinator, judges, and CRC manager must initial either of these actions on the rating form.
- E. If necessary, manage security and the removal of materials from the event area.