



OVERVIEW

Participants use computer graphics tools and design processes (i.e., animation) to communicate, inform, analyze and/or illustrate a topic, idea, subject, or concept that focuses on one (1) or more of the following areas: science, technology, engineering, or mathematics; sound may accompany graphic images. Participants will find the current year's theme posted on the TSA website (www.tsaweb.org) under Competitions/Themes and Problems for this information. A documentation portfolio and a USB flash drive with the STEM animation comprise the entry. Semifinalists make a presentation.

ELIGIBILITY

Three (3) teams per state may participate, one (1) entry per team.

TIME LIMITS

Preliminary Round

1. The animation is not to exceed three (3) minutes in length.
2. There will be a three (3)-point deduction for each fifteen (15) seconds, or fraction thereof, over the three (3)-minute length.
3. The animation time is calculated from the start of the first image or sound to the end of the last image or sound.

Semifinal Round

1. Ten (10) minutes is allowed to present the animation to the judges.

LEAP

A team LEAP Response is required for this event and must be submitted at event check-in (see LEAP Program).

ATTIRE

TSA competition attire is required.

PROCEDURE

Preliminary Round

1. Participants check in their entry and LEAP Response at the time and place stated in the conference program.
2. Judges review the entries.
3. Neither students nor advisors are present at this time.
4. A list of twelve (12) semifinalists (in random order) will be posted.

Semifinal Round

1. 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.

2. Each semifinalist team explains its portfolio to the judges, discussing the purpose, value, research and design, and development process of its work.
3. The LEAP Response will be judged for semifinalist teams.
4. Ten (10) finalists will be announced during the conference awards ceremony.

REGULATIONS

Preliminary Round

- A. A documentation portfolio and a USB flash drive with the animation must be turned in at the time and place stated in the conference program.
- B. Documentation materials (comprising a "portfolio") are required and should be secured in a clear front report cover. (Click [here](#) for a sample.)
- C. The report cover must include the following single-sided, 8½" x 11" pages, in this order:
 1. Title page with the event title, the conference city and state, the year, and the team ID number; one (1) page
 2. Table of contents; pages as needed
 3. Purpose of animation; one (1) page
 4. Hand-sketched storyboard 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
 5. Written description of what the animation illustrates or demonstrates; one (1) page
 6. List of references that includes sources for materials, copyrighted and otherwise; pages as needed; the term "Fair Use" and similar terms are not acceptable citations when creating the list of references.
 7. Permission letters for copyrighted material; pages as needed
 8. List of software and hardware used in the development of the animation; one (1) page
 9. Plan of Work log that indicates preparation for the event, as noted by date, task, time involved, team member responsible, and comments (see Forms Appendix); pages as needed
 10. A completed Student Copyright Checklist (see Forms Appendix); pages as needed
- D. Animation
 1. Each animation must advance automatically once it has been opened and started by judges.
 2. Animations must be turned in on a USB flash drive, in either MPEG or Quick Time file formats.
 3. No high-definition CD, DVD, or Blu-ray disc formats will be allowed.
 4. The animation is not to exceed three (3) minutes in length.
 5. 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.
 6. Sound may accompany the animation, but it is not required.
 7. All entries must be the original work of the team.
 8. Where applicable, all ideas, text, images, and sound from other sources must be cited.
 9. If copyrighted material is used, proper written permission must be included (see Student Copyright Checklist in Forms Appendix).
 10. Failure to follow these procedures may result in disqualification.



11. 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.)

Semifinal Round

- A. The presentation team may not exceed two (2) members.
- B. All entries become the property of national TSA and will not be returned after judging.
- C. The LEAP Response:
 1. Teams document the leadership skills the team has developed and demonstrated while working on this event, and on a non-competitive event leadership experience.
 2. Find the specific LEAP Response regulations in the LEAP Program section of this guide, and on the [TSA website](#).

EVALUATION

Evaluation is based on:

1. Preliminary Round: The quality of the portfolio and the animation
2. Semifinal Round: The presentation and the content and quality of the LEAP Response

Refer to the official rating form for more information.

NOTES

Find information about STEM Animation on this website: www.ncsu.edu/project/stemgaming/scivis.html

STEM INTEGRATION

This event has connections to the STEM areas of Science, Technology, Engineering, and Mathematics.

CAREERS RELATED TO THIS EVENT

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

- Computer animator
- Game designer
- Instructional technologist
- Software engineer

STEM ANIMATION EVENT COORDINATOR INSTRUCTIONS

PERSONNEL

- A. Event coordinator
- B. Assistant for check-in, one (1)
- C. Judges:
 - 1. Preliminary round, two (2) or more
 - 2. Semifinal round, two (2) or more

MATERIALS

- A. Coordinator's packet, containing:
 - 1. Event guidelines, one (1) copy for the coordinator and each judge
 - 2. TSA Event Coordinator Report
 - 3. List of judges/assistants
 - 4. Stick-on labels for identifying entries
 - 5. Results envelope with coordinator forms
- B. Tables for entries
- C. One (1) computer with monitor and a USB flash drive as needed for judges
- D. One (1) extension cord and one (1) power strip as needed for judges
- E. Tables and chairs for event coordinator, judges, and participants

RESPONSIBILITIES

- A. At the conference:
 - 1. Attend the mandatory coordinator's meeting at the designated time and location.
 - 2. Report to the CRC room and check the contents of the coordinator's packet.
 - 3. Review the event guidelines and check to see that enough judges/assistants have been scheduled.
 - 4. Inspect the area(s) 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.
 - 5. At least one (1) hour before the evaluation of entries is to begin, meet with your judges and check-in personnel to review time limits, procedures, and regulations. If questions arise that cannot be answered, speak to the CRC event manager before the evaluation begins.
- B. Preliminary Round:
 - 1. Check in entries at the time and place noted in the conference program.
 - 2. Notify the event manager immediately of any team handing in a portfolio and USB flash drive that is not on the entry list. Determine if the team in question is properly registered.
 - 3. Judges independently assess the entries.
 - 4. Decisions about rules violations must be discussed and verified with the judges, event coordinator, and CRC manager to determine either



- to deduct twenty percent (20%) of the total possible points in this round or
 - to disqualify the entry
 - The event coordinator, judges and CRC manager must all initial either of these actions on the rating form.
1. Judges determine the twelve (12) semifinalists and discuss and break any ties.
 2. Submit semifinalist results and all related forms in the results envelope to the CRC room.
 3. If necessary, manage security and the removal of materials from the event area.
- A. Semifinal Round:
1. Semifinalists report to the event area at the time and place stated in the conference program.
 2. Each semifinalist team signs up for a time to present its animation.
 3. During the presentation, semifinalist team representatives will explain their work and answer any questions the judges may ask.
 4. Judges independently assess the twelve (12) semifinalist teams.
 5. Decisions about rules violations must be discussed and verified with the judges, event coordinator, and CRC manager to determine either
 - to deduct twenty percent (20%) of the total possible points in this round or
 - to disqualify the entry
 - The event coordinator, judges and CRC manager must all initial either of these actions on the rating form.
- B. Judges determine the ten (10) finalists and discuss and break any ties.
- C. Submit the finalist results and all related forms in the results envelope to the CRC room.
- D. Collect all USB flash drives and portfolios and give them to the event manager.
- E. If necessary, manage security and the removal of equipment and materials from the area.



Participant/Team ID# _____

STEM ANIMATION

2018 & 2019 OFFICIAL RATING FORM

MIDDLE SCHOOL

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 blank and place a check mark in the box labeled ENTRY NOT EVALUATED. This will disqualify the entry and it will not be judged.

- Portfolio with all components
- Animation on appropriate storage device
- No copyrighted music, graphics, or other components
- Completed LEAP Response is present
- ENTRY NOT EVALUATED

Criterion Performance Levels

CRITERIA	Minimal performance 1-4 points	Adequate performance 5-8 points	Exemplary performance 9-10 points
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Evaluators: Using minimal (1-4 points), adequate (5-8 points), or exemplary (9-10 points) performance levels as a guideline, record the scores earned for the event criteria in the column spaces to the 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.

Portfolio (30 points)

Portfolio See Regulation B (X1)	Portfolio is unorganized and/or missing three or more components.	Portfolio includes most components and is generally organized.	All components of the portfolio are included, and content and organization are clearly evident.
Purpose and description (X1)	The purpose and description of the animation idea are unclear.	The purpose and description of the animation are explained appropriately.	The purpose and description of the animation are clear and concisely written.
Storyboard (X1)	The hand-sketched storyboard is sloppy, seems to have been thrown together after the creation of the animation, and/or it does not correlate with the animation.	The storyboard is drawn appropriately and largely correlates with the completed animation.	The storyboard is of exceptional aesthetic and artistic value and clearly correlates with the animation.

PORTFOLIO SUBTOTAL (30 points)

Animation (50 points)

CRITERIA	Minimal performance 1-4 points	Adequate performance 5-8 points	Exemplary performance 9-10 points
Communication of animation (X1)	It is difficult to understand the idea being communicated; an illogical explanation is presented.	The idea is communicated, and thoughts are somewhat organized and/or concise.	The idea is communicated in an organized, clear, and concise manner.
Creativity (X1)	The animation lacks creativity; no, or very few, design principles are integrated in the animation.	Some elements of creativity are expressed, and essential design principles are used somewhat effectively.	The animation exudes creativity; essential design principles and elements are integrated.
Aesthetics and artisanship (X1)	Unorganized, sloppy work is evident; the animation seems to be an afterthought and/or thrown together.	An organized presentation of essential issues in a logical format is evident.	An exemplary use of layout and design principles to logically communicate important data is evident.
Graphical representations (X1)	Graphical representations do not help to clarify the idea, or they are of little significance to the idea.	Graphical representations are appropriate and help supplement the idea by providing some clarity.	Graphical representations are of excellent quality and completely clarify the idea.

Record scores in the column spaces below.



Animation continued (50 points)			
CRITERIA	Minimal performance 1-4 points	Adequate performance 5-8 points	Exemplary performance 9-10 points
Originality (X1)	The animation lacks imagination, originality, and artistic detail.	The animation is effective and innovative, conveying some depth.	The animation is inspiring, inventive, resourceful, and completely motivating.
ANIMATION SUBTOTAL (50 points)			
Rules violations (a deduction of 20% of the total possible points for the above sections) must be initiated by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right.			
Indicate the rule violated: _____			
Time Deductions			
A three (3)-point deduction will be incurred for each fifteen (15) seconds, or fraction thereof, over the three (3)-minute animation maximum length.			
Total animation time			
Number of time interval deductions			
TOTAL TIME DEDUCTION POINTS			
PRELIMINARY SUBTOTAL (80 points)			
Semifinal Presentation (74 points)			
CRITERIA	Minimal performance 1-4 points	Adequate performance 5-8 points	Exemplary performance 9-10 points
Organization (X1)	Participants seem unorganized and unprepared for the presentation; illogical explanation of the idea is presented.	Participants are generally prepared for the presentation; explanation of idea is communicated and generally organized.	The presentation is logical, well organized, and easy to follow; the idea is communicated in an organized and concise manner.
Articulation (X1)	The presentation is full of illogical thoughts that lack clarity, and/or there is insufficient information provided describing the project.	The presentation is somewhat logical, easy to follow, and/or there is sufficient information provided describing the project.	The presentation is clear, concise, and there is ample information provided describing the project.
Delivery (X1)	The team is verbose and/or uncertain in its presentation; participants' posture, gestures, and lack of eye contact diminish the presentation.	The team is somewhat well-spoken and clear in its presentation; participants' posture, gestures, and eye contact are acceptable in the presentation.	The team is well-spoken and distinct in its presentation; participants' posture, gestures, and eye contact result in a polished, natural, and effective presentation.
Knowledge (X2)	Participants seem to have little understanding of the concepts in their project.	Participants exhibit an understanding of the concepts in their project.	Participants show clear evidence of a thorough understanding of their project.
Team participation (X1)	The majority of the delivery is made by one member of the team; the partner may be disengaged from the presentation.	Both team members generally are engaged in the process, though one member may take on more responsibility than the other.	Both team members are actively involved in the presentation and responses to any questions; there is shared responsibility between team members.
LEAP (10% of the total event points)	The team's efforts are not clearly communicated, lack detail, and are unconvincing; few, if any, attempts are made to identify and incorporate the SLC Practices.	The team's efforts are adequately communicated, include some detail, are clear, and are generally convincing; identification and incorporation of the SLC Practices are satisfactory.	The team's efforts are clearly communicated, fully-detailed, and convincing; identification and incorporation of the SLC Practices are excellent.
SEMIFINAL PRESENTATION SUBTOTAL (74 points)			
Rules violations (a deduction of 20% of the total possible points for the semifinalist section) must be initiated by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right.			
Indicate the rule violated: _____			



SEMIFINAL SUBTOTAL (74 points)		
(To arrive at the TOTAL score, add the PRELIMINARY SUBTOTAL and the SEMIFINAL SUBTOTAL.)		
TOTAL (154 points)		
Comments:		
I certify these results to be true and accurate to the best of my knowledge.		
<u>Evaluator</u>		
Printed name: _____		Signature: _____