

OVERVIEW

Throughout the world, people are working to become more self-sustaining when it comes to landscaping and architectural design. Sometimes the purpose is to live off the grid, other times it is to create a smaller carbon footprint; yet other times it is to meet a need in locations where there is not access to power, water, or other basics. There are many options for sustainability throughout the world, but sometimes a location limits or enables those options. In this event, participants conduct research on a sustainable architectural design for a home in a country of the team's choosing (other than its home country). Teams will create a display and a model. The model can be of the home the team designs or of a specific aspect of their design. Semifinalist teams will give a presentation and are interviewed about their design. The design brief for this competition will be posted on the [TSA website](#) under Competitions/Themes and Problems.

ELIGIBILITY

PRELIMINARY ROUND

1. Three (3) teams per state may participate; a team of one (1) is permitted

SEMIFINAL ROUND

1. A maximum of three (3) team members participate in the presentation/interview

TIME LIMITS

The semifinal presentation/interview will be no longer than ten (10) minutes.

LEAP

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

ATTIRE

TSA competition attire is required.

PROCEDURE

PRE-CONFERENCE

1. Team members select a country and design a sustainable home based on that country's climate conditions, raw materials available, construction methods, and infrastructure.
2. Team members research their chosen country using resources, such as books, interviews, websites, magazines, professional journals, etc.
3. Participants prepare their documentation, display, and model according to the regulations for this event.
4. Participants prepare a presentation.

PRELIMINARY ROUND

1. Participants check in the following at the time and place stated in the conference program:
 - a. The model
 - b. The display
 - c. The documentation portfolio
 - d. A hard copy of the LEAP Response with no report cover, separated from the portfolio
2. Entries are evaluated by judges independently, with neither students nor advisors present.
3. A list of twelve (12) semifinalists (in random order) will be posted.

SEMIFINAL ROUND

1. Two (2) to three (3) team members report to the event location for a presentation/interview at the time and place stated in the conference program.
2. The LEAP Response will be judged for semifinalist teams.
3. Ten (10) finalists will be announced during the conference awards ceremony.

REGULATIONS AND REQUIREMENTS

PRE-CONFERENCE

- A. Participants must understand the fundamental concepts and principles of the sustainable architecture that they are implementing. Research should focus on the country's environment, climate, natural resources, and economy.
- B. Documentation materials (comprising a "portfolio") are required and should be secured in a clear front report cover (click [here](#) for a sample).
 1. The report cover must include the following single-sided, 8½" x 11" 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
 - c. A description of how the team interpreted the design challenge and an explanation of the style and merits of the solution; two (2) pages
 - d. A description of the country's environment, climate, natural resources, and economy; three (3) pages
 - e. Building materials used in the construction of the home interior and exterior surfaces of the architectural design (this is different from the list of the model construction materials); one (1) page
 - f. CAD drawings for the required 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. Original floor plan/s of the design
 - ii. Landscape plan
 - iii. Diagrams explaining design elements
 - g. A list of references and credible resources; a minimum of three (3) different types of resources must be used; examples of resources include, but are not limited to, books, interviews, professional journals, websites, magazines, etc.; pages as needed

- h. Plan of Work Log that indicates preparation for the event, as noted by date, task, time involved, team member responsible, and comments (see Plan of Work Log in the Forms Appendix)

C. Display and model

1. The display must include:
 - a. Model of the solution or model of a system used for the design
 - b. The chosen country's name
 - c. A world map clearly indicating the location of the chosen country, the location of the current year's national TSA conference, and the distance in miles between the two (2) locations
 - d. A tri-fold flyer or brochure that provides basic information and facts about the chosen country (one [1] piece of 8½" x 11" paper)
 - e. The team's documentation portfolio
2. The size of the display and model may not exceed 15" deep x 3' wide x 4' high.

PRELIMINARY ROUND

- A. No more than two (2) team members check in the entry and setup the display, observing the following:
 1. Models or prototypes must fit within the allotted display space
 2. A/C electricity is prohibited
 3. Dry cell or photo-voltaic cells may be used for power, if desired
 4. The power source used must fit within the maximum display area
 5. If operating instructions are necessary, they must be clearly displayed
- B. Violation of the following will result in disqualification:
 1. No viruses, live plants, or animals may be used as a part of the display.
 2. No harmful or illegal substances may be displayed.

SEMIFINAL ROUND

- A. The semifinalist presentation/interview, which must include two to three (2-3) team members, will not exceed ten (10) minutes.
- B. The presentation must be based on the display and the portfolio. No additional materials or devices will be allowed for the presentation.
- 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

PRELIMINARY ROUND

1. The documentation and display

SEMIFINAL ROUND

1. The presentation/interview and the content and quality of the LEAP Response.

Refer to the official rating form for more information.

STEM INTEGRATION

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

CAREERS RELATED TO THIS EVENT

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

- Appraiser
- Architect
- Construction manager
- Interior designer
- Urban and regional planner

OFF THE GRID

2020 & 2021 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 is present
- Display and model are within size requirements
- Drawings are present
- LEAP Response is present
- ENTRY NOT EVALUATED

DOCUMENTATION (80 points)				Record scores in the column spaces below.
CRITERIA	Minimal performance	Adequate performance	Exemplary performance	
	1-4 points	5-8 points	9-10 points	
Portfolio See Regulation B (X1)	Portfolio is unorganized and/or missing three (3) or more components.	Portfolio has most components and is generally organized; it has sufficient content.	All components are included in the portfolio; content and organization are excellent.	
Description of design interpretation (X1)	The description of the design and style is unclear or vague; includes little or no mention of the sustainable design features.	The description of the design and explanation of the style are included; they are adequately presented.	The descriptions and merits of the design, and an explanation of the style are clear, effective, and convincing.	
Description of the chosen country (X1)	There is little or no evidence of research done; the country's environment, climate, natural resources, and economy were not addressed clearly or at all.	Most, but not all, of the required areas of research are present and clearly documented.	All of the research area are clearly documented and well presented.	
Building materials (X1)	Many elements are missing or incomplete.	Most, but not all, elements are included.	All elements are included, and are detailed and explained clearly.	
Drawings See Regulation B.1.f (X2)	A few of the required drawings are present, but they are lacking in quality.	Most, but not all, of the required drawings are included and are in the proper format.	All required drawings are included and in the proper format.	
Resources/ references (X1)	There is little to no effort to provide resources or references.	Resources and references are included and are generally presented appropriately.	There is clear evidence of the appropriate use of applicable resources and references.	
Plan of Work log (X1)	The Plan of Work log lacks major elements of documentation.	The Plan of Work log is somewhat complete, and generally reflects the time and work necessary for the project.	The Plan of Work log completely and accurately reflects the time and work necessary for the project.	
DOCUMENTATION SUBTOTAL (80 points)				

DESIGN CHALLENGE (30 points)				Record scores in the column spaces below.
CRITERIA	Minimal performance	Adequate performance	Exemplary performance	
	1-4 points	5-8 points	9-10 points	
Effectiveness of design (X1)	The design is ineffective in meeting the needs of the challenge.	The design is somewhat effective in meeting the needs of the challenge.	The design is clearly effective in meeting the needs of the challenge.	
Aesthetic appeal and functionality (X1)	There is little to no evidence of consideration of aesthetics and curb appeal in the design; systems in the model do not match or work with the design.	There is some evidence that aesthetics and curb appeal have been considered in the design; most systems in the model match or work with the design.	There is clear evidence that aesthetics and curb appeal are fully and effectively integrated into the design; all systems in the model work with the design.	
Creativity and innovation (X1)	The design lacks originality and exhibits few, if any, creative and/or innovative applications.	Some unique, innovative, and creative concepts are incorporated in the overall design.	Unique, creative, and innovative approaches are fully incorporated into the design.	
DESIGN CHALLENGE SUBTOTAL (30 points)				

DISPLAY AND MODEL (60 points)				Record scores in the column spaces below.
CRITERIA	Minimal performance	Adequate performance	Exemplary performance	
	1-4 points	5-8 points	9-10 points	
Display components (X1)	Display is unorganized and/or is missing three (3) or more components.	Display has most components and is generally organized; it has sufficient content.	All components are included in the display content and the organization is excellent.	
Communication of solution (X1)	The description of the country and design is unclear or vague; there is little to no mention of the sustainable design features.	The description of the country and design of the style are included, and they are adequately presented.	The description of the country and design of the style are clear, effective, and convincing.	
Creativity (X1)	Display lacks originality; none or very few design principles are integrated in the display.	Some resourcefulness and ingenuity are evident in the display; essential design principles are generally used effectively.	There is clear evidence of an inventive, unique, and creative display; essential design principles and elements are integrated.	
Brochure (X1)	The brochure is missing or is not effective in communicating the solution to the challenge and the country chosen.	Most of the brochure is well designed and informative about the solution to the challenge and the country chosen.	The brochure effectively informs the reader of the solution to the challenge and the country chosen.	
Model (X2)	The model is not informative and does not effectively nor accurately represent the design.	Most of the model is informative and accurately represents the design.	The model effectively displays the solution to the challenge and accurately represents the design.	
DISPLAY AND MODEL 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 (170 points)	
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SEMIFINAL PRESENTATION/INTERVIEW (72 points)				Record scores in the column spaces below.
CRITERIA	Minimal performance	Adequate performance	Exemplary performance	
	1-4 points	5-8 points	9-10 points	
Organization (X1)	Participant(s) seem unorganized and unprepared for the interview; illogical explanation of the problem and solution is presented.	Participant(s) is/are generally prepared for the interview; explanation of the problem and solution are generally communicated.	Interview is logical and easy to follow; the problem and solution are communicated in a concise manner.	
Articulation (X1)	The interview is full of illogical thoughts that lack clarity, and/or there is insufficient information provided describing the project.	The interview is somewhat logical, easy-to-follow, and/or there is sufficient information provided describing the project.	The interview is clear, concise, and there is ample information provided describing the project.	
Delivery (X1)	The participant(s) is/are verbose and/or uncertain in its interview; participants' posture, gestures, and lack of eye contact diminish the interview.	The participant(s) is/are somewhat well spoken and clear in its interview; participants' posture, gestures, and eye contact are acceptable in the interview.	The participant(s) is/are well-spoken and distinct in its interview; participants' posture, gestures, and eye contact result in a polished, natural, and effective interview.	
Knowledge (X2)	Participant(s) exhibit little understanding of the concepts in their project; answers to questions may be vague.	Participant(s) exhibit a general understanding of the concepts in their project.	Participant(s) show clear evidence of a thorough understanding of the project.	
LEAP Response (22 points; 10% of the total event points)	The team/individual'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/individual'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/individual's efforts are clearly communicated, fully-detailed, and convincing; identification and incorporation of the SLC Practices are excellent.	
DISPLAY AND MODEL SUBTOTAL (72 points)				
Rules violations (a deduction of 20% of the total possible points for the above sections) must be initiated by the judge, coordinator, and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____				
SEMIFINAL SUBTOTAL (72 points)				
To arrive at the TOTAL score, add any subtotals and subtract rules violation points, as necessary.				TOTAL (242 points)

Comments:

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

JUDGE

Printed name: _____ Signature: _____

OFF THE GRID

EVENT COORDINATOR INSTRUCTIONS

PERSONNEL

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

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 entries, as needed
 5. Results envelope with coordinator forms
- B. Tables for entries
- C. Tables and chairs for event coordinator and judges

RESPONSIBILITIES

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 personnel 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 event is scheduled to begin, meet with judges/assistants to review time limits, procedures, and regulations. If questions arise that cannot be answered, speak to the event manager before the event begins.

PRELIMINARY ROUND

1. Ensure the model and display does not exceed: 15" deep x 3' wide x 4' high.
2. Check to make sure the entry do NOT include:
 - Viruses, live plants, or animals
 - Harmful or illegal substances.
3. Participants check in:
 - a. The model
 - b. The display
 - c. The documentation portfolio
 - d. A hard copy of the LEAP Response with no report cover, separated from the portfolio
5. Late entries are considered on a case-by-case basis and only when the lateness is caused by events beyond the participant's control.
6. In order to compete, participants must be on the entry list or must have approval of the CRC.
7. Requirements for attire do NOT apply during check-in, only on the first day of the conference.
8. Place a team identification number stick-on label in the lower right-hand corner of each display.
9. Secure the entries in the designated area.
10. Judges independently assess the entries.
11. Decisions about rules violations must be discussed and verified with the judges, event coordinator, and the CRC manager to determine either:
 - To deduct twenty percent (20%) of the total possible points in this round
 - To disqualify the entry

The event coordinator, judges and CRC manager must all initial either of the violations on the rating form.
12. Judges determine twelve (12) semifinalists and discuss and break any ties.
13. Submit semifinalist results to the CRC for posting.
14. Create an interview/presentation sign-up sheet.

SEMIFINAL ROUND

1. The semifinalist presentation/interview, which must include two to three (2-3) team members, will not exceed ten (10) minutes.
2. The presentation must be based on the display and the portfolio. No additional materials or devices will be allowed for the presentation.
3. Judges review the presentation and ask pertinent interview questions.
4. Discuss rule violations (e.g. 20% deduction, disqualification) and have all relevant parties initial the rating form.
5. Judges determine the ten (10) finalists and discuss and break any ties.
6. Submit the finalist results and all related forms in the results envelope to the CRC room.
7. Manage security and removal of all materials from the area.