CONSTRUCTION CHALLENGE

OVERVIEW

Participants submit a scale model/prototype, with a portfolio that documents the use of their leadership and technical skills, to fulfill an identified community need related to construction. Semifinalists discuss their projects in a presentation and an interview.

ELIGIBILITY

One (1) team per chapter may participate. Two to four (2-4) representatives per team may participate for the semifinalist presentation/interview.

TIME LIMITS

1. Preliminary Round: The project must have been in progress or completed during the current school year.

2. Semifinal Round: Semifinalists have a maximum of ten (10) minutes to present and discuss their chapter's participation in a project and to answer the judges' questions.

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. No more than two (2) team members set up a scale model/prototype and portfolio.

3. Entries are reviewed by judges. Neither students nor advisors are present at this time.

4. A list of twelve (12) semifinalist teams (in random order) will be posted.

Semifinal Round

1. A representative from each semifinalist team will report at the time and location stated in the conference program to schedule a presentation/interview time.

2. Two to four (2-4) representatives from each team meet with the event coordinator and judges at the designated time to make a brief presentation, discuss their chapter's community project, and answer the questions of the judges.

3. Participants pick up their entries from the display area at the time specified in the conference program.

4. The LEAP Response will be judged for semifinalist teams.

5. Ten (10) finalists will be announced during the conference awards ceremony.

REGULATIONS

Preliminary Round

A. Chapters document involvement with the community through the use of a project journal (that provides in detail both student and community involvement), letters, interviews, pictures, newspaper clippings, or other such evidence.

B. Chapters must become involved in the majority of stages of development of the project, from planning to construction (where appropriate), by experiencing as many facets of the undertaking as possible.

C. The history of long-term or ongoing projects that began in a previous year or that will continue beyond the current school year may be included with the documentation; however, the scale model/prototype and portfolio must be based on current year activities.

D. The chapter must address the impact of the construction project on the community. "Community" is defined as within an area near the school.

E. Event entry and documentation:

1. Documentation materials (comprising a "portfolio") are required and must be secured in a clear front report cover. (Click here for a sample.)

2. 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/chapter ID number; one (1) page
    b. Table of contents
    c. 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); pages as needed
    d. Project journal, letters from community members that verify chapter involvement, pictures of the project, newspaper clippings, and other relevant materials; pages as needed
    e. Photo time line of project photos (before, during, and after the project), with dates and team members involved; pages as needed
    f. Research provided on the community need for the project; pages as needed
    g. Strategies and recommendations of the team that will address the community need; up to three (3) examples

3. If the entry (scale model/prototype or portfolio) contains images of people, proof of consent must be provided.
    a. Minors require parental consent. (See Photo/Film/Video Consent and Release form in Forms Appendix)
    b. The consent forms do not count in the page limits identified in Regulation E2.

4. The materials that make up the scale model/prototype must be student-constructed and assembled.

5. The display may occupy a space no more than 15" deep x 3' wide x 4' high.

6. A/C electricity may not be used.

7. The chapter name or other identifying information may appear in the entry (only in newspaper clippings, photographs, etc.).
    a. Identifying information must not be placed on the scale model/prototype, display, or in the portfolio for the purpose of revealing the TSA chapter.
    b. The entry is excluded from General Rule F.8.

Semifinal Round

A. Semifinalist teams comprised of two to four (2-4) members will have a maximum of ten (10) minutes to make a presentation and answer interview questions from judges.

B. The LEAP Response:

    1. Teams document the leadership skills they have developed and demonstrated while working on this event, and on a non-competitive event leadership experience.

    2. Find 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: Participants' involvement in a community project

2. Semifinal Round: Points are awarded points based on a semifinalist 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 areas of Science, Technology, Engineering, and Mathematics.

CAREERS RELATED TO THIS EVENT

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

- Architect
- Community planner
- Construction manager
- General contractor
- Product designer

CONSTRUCTION CHALLENGE
EVENT COORDINATOR INSTRUCTIONS

PERSONNEL

A. Event coordinator

B. Judges:

    1. Preliminary round, two (2) or more

    2. Semifinalist round, two (2) or more

C. Assistants:

    1. Two (2) or more individuals assigned to check in, receive entries, and direct students to the display set-up area

    2. One (1) individual assigned for security during the set-up time

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. Display tables for entries (needed at set-up time through pick-up time prior to the close of the conference)

C. Stopwatch to monitor semifinalist presentations and interviews

D. Tables and chairs for event coordinator and judges

RESPONSIBILITIES

A. At the conference:

    1. Attend the mandatory event 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 or room in which the event is to be 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 and assistants to review time limits, procedures, regulations, and all other details related to the event. If questions arise that cannot be answered, speak to the event manager before the event begins.

B. Event Check-in:

    1. Check in the entries at the time stated in the conference program.

    2. Anyone reporting who is not on the entry list may check in only after official notification is received from the CRC.

    3. Late entries are considered on a case-by-case basis and only when the lateness is caused by events beyond the participant's control.

4. Requirements for attire do NOT apply during check-in only on the first day of the conference.

5. Secure the entries in the designated area.

C. Preliminary Round:

1. Judges independently review the entries.

2. 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

3. Judges determine the twelve (12) semifinalists.

4. Submit semifinalist results and all related forms in the results envelope to the CRC room.

5. If necessary, manage security and the removal of materials from the event area.

D. Semifinal Round:

1. Conduct presentation/interviews using the same official rating form used in the preliminary round.

2. 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

3. Judges determine the ten (10) finalists and discuss and break any ties that affect the top three (3) placements.

E. Submit the finalist results and all related forms in the results envelope to the CRC room.

F. If necessary, manage security and the removal of materials from the event area.

CONSTRUCTION CHALLENGE

Record scores in the column spaces below.

Go/No Go Specifications

Before judging an entry, ensure that all items are present; indicate presence with an "X" in the box. If an item is missing, leave the box blank and place an "X" in the box labeled ENTRY NOT EVALUATED; this disqualifies the entry and it is not to be judged.

- ☐ **Portfolio is present**
- ☐ **Model/Prototype is present**
- ☐ **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

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.

Display (40 points)

CRITERIA	Minimal performance	Adequate performance	Exemplary performance	
Overall aesthetics (X2)	Model/prototype is sloppy and does not represent the project.	Model/prototype has some design flaws, but it represents the project.	Model/prototype has a high quality of craftsmanship and clearly depicts the project.	
Identification of community need and community impact (X1)	Identification of the community need and impact lacks clarity; wordy, illogical, unorganized explanations are included.	Identification of the community need and impact is generally organized, with a mostly logical explanation and concisely written information.	Clear and concise identification of the community need and impact is evident, with a logical explanation related to the need.	
Strategies and recommendations (X1)	Two or fewer strategies/ recommendations are presented; they are not well-connected to the community need identification.	Two or more strategies/ recommendations are presented; some are connected to the research collected.	Three or more strategies/ recommendations are presented, all of which are connected to the research that was collected and analyzed.	
			DISPLAY SUBTOTAL (40 points)	

Portfolio (30 points)

CRITERIA	Minimal performance 1-4 points	Adequate performance 5-8 points	Exemplary performance 9-10 points	
Portfolio contents See Regulation E.2 (X1)	Portfolio is unorganized and/or is missing three components.	Portfolio is generally organized but is missing two components.	Portfolio content and organization are clearly evident; one or no components may be missing.	
Project verification (X1)	Little or no student involvement is evident in the project; work is unorganized and/or sloppy.	Community letters, photos, and/ or news clippings documenting student involvement in the project are included in the portfolio.	A well-organized and thorough documentation of student involvement, from inception to completion of the project, is included in the portfolio.	
Photo time line (X1)	Photo timeline is sloppy and/or unorganized and hard to read and understand; key dates are missing.	Photo timeline is formatted in a somewhat organized manner and is generally easy to read/interpret; it includes most key dates.	Photo timeline has all key dates listed from inception to completion; the timeline is creative and organized.	
			PORTFOLIO SUBTOTAL (30 points)	

Rules violations (a deduction of 20% of the total possible points for the above sections) must be initialed by the evaluator, coordinator, and manager of the event. Record the deduction in the space to the right.

Indicate the rule violated: _____

	PRELIMINARY SUBTOTAL (70 points)	

Semifinal Presentation/Interview (62 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/interview; an illogical explanation of the need and solution is presented.	Participants are generally prepared for the presentation/interview; a general and organized explanation of the need and solution are communicated.	Presentation/interview is logical, well organized, and easy to follow; the need and solution are communicated in an organized and concise manner.
Knowledge (X2)	Participants seem to have little understanding of the concepts in their project; answers to questions may be vague.	Participants exhibit an understanding of the concepts in their project.	Participants show clear evidence of a thorough understanding of the project.
Delivery (X1)	Team is verbose and/or uncertain in its presentation/interview; participants' posture, gestures, and lack of eye contact diminish the presentation/interview.	Team is somewhat well-spoken and clear in its presentation/interview; participants' posture, gestures, and eye contact are adequately polished.	Team is well-spoken and distinct in its presentation/interview; participants' posture, gestures, and eye contact result in a polished, natural, and effective presentation/interview.
Team participation (X1)	The majority of the delivery is made by one member of the team; the partner(s) may be disengaged from the presentation/interview.	Team members generally are engaged in the presentation/interview, though one member may take on more responsibility than the other(s).	All team members are actively involved in the presentation/interview and responses to questions; there is shared responsibility between team members.
LEAP Response (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/INTERVIEW SUBTOTAL (62 points)	

Rules violations (a deduction of 20% of the total possible points for the semifinalist section) must be initialed by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right.

Indicate the rule violated: _____

	SEMIFINAL SUBTOTAL (62 points)	
(To arrive at the TOTAL score, add the PRELIMINARY SUBTOTAL and the SEMIFINAL SUBTOTAL.)	TOTAL (132 points)	

Comments:

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

Evaluator

Printed name: _____   Signature: _____