

PROPOSAL FORMAT:

The information below gives an indication of what the judges are looking for in each section. **The proposal must contain all of the sections outlined below to be considered for the competition.**

I. BRIDGE PROPOSAL (See Page 5 for Assessment)

- A. Proposal Format: The written proposal should be typed, double-spaced using a size 12 font of either Arial or Times New Roman on 8.5 x 11 paper with all pages numbered, 1" borders all around. Sections must be in order of the outline below:
- B. Timeliness: Proposals received after the deadline will not be accepted.
- C. Proposal Presentation: Portfolio **MUST** contain all the sections outlined below:

I. Title Page. Include name of challenge, team name, and team logo, name of school or organization, city and state, names of students, name of teacher or advisor.

II. Table of Contents.

III. Summary (abstract). Clearly and concisely stated. (At least ½ page, no more than two pages)

IV. Introduction. Indicate the team name, team members as well as the background of each member.

V. Body. The main part of the report. This may be divided into several sections (such as Design, Development, etc.). In general, this part should:

- a) Explain the scientific principles behind your design.
- b) Describe the challenges you encountered in designing your bridge
- c) Include Data Tables, Graphic Representation of Tests, and supporting Calculations page.
- d) Include scaled CAD drawings of preliminary and final bridge designs.
- e) Include at least five pictures of team work during bridge design and construction, along with a picture of the constructed bridge (prototype or final).
- f) Explain how you tested your design, and the improvements this led you to make.
- g) Describe the challenges that you encountered in building your bridge and how you solved these problems. Include safety precautions, building methods, etc.

VI. Conclusions (and Recommendations). How successful is your project? What did you learn by taking part?

VII. Acknowledgments. List the names of the adults who assisted you in the project with a brief description of what they did. Include a certification, signed by all student team members and adults assisting, stating that: "We hereby certify that the majority of the ideas, design, and work was originated and performed by the students, with limited assistance by adults, as described above."

VIII. Bibliography. List all references used, including Internet, books and magazines.

IX. Appendices. They must include:

- A. Scheduling and Accomplishments.** Show on a timeline, or similar method, how you scheduled your project. Include *brief* records of meetings.
- B. Daily Journal.** Progress reports of day-to-day work on the project, including date, performance, and comments from each team member.

PROPOSAL ASSESSMENT

2025 STEM OUTREACH SOLUTIONS BRIDGE CHALLENGE PROPOSAL FORMAT

ALL PROPOSALS SHOULD FOLLOW THE FORMAT BELOW TO BE CONSIDERED FOR NATIONAL CHALLENGE

Proposal Format	Possible Points	Points Awarded
Typed	(1 point)	
Double Spaced	(1 point)	
12 Point Font (Arial or Times New Roman)	(1 point)	
All pages on 8.5 x 11 paper	(1 point)	
Information is in the proper order	(2 point)	
All pages are numbered	(1 point)	
Style and presentation	(1 points)	
Mechanics	(1 points)	
Visuals	(1 points)	
		Score _____ / 10 Possible Points

Proposal Presentation

Title page	(1 point)	
Table of Contents	(1 point)	
Summary (no more than 2 pages)	(5 points)	
Introduction	(1 points)	
Body		
○ Sections of portfolio identified	(3 points)	
○ Scientific principles of the design	(5 points)	
○ Design challenges	(5 points)	
○ Tables, Graphs, Calculations	(10 points)	
○ Detailed scaled CAD drawings	(5 points)	
○ Photos during and after construction	(5 points)	
○ Testing and improvements	(5 points)	
Conclusion		
○ Recommendations	(5 points)	
○ Success of the project	(5 points)	
○ What was learned by taking part	(5 points)	
Acknowledgements		
○ Adults involved	(1 points)	
○ Description of what the adults did	(1 points)	
○ Certification and signatures	(1 points)	
Bibliography	(1 points)	
Appendices		
○ Schedule on a timeline or similar	(5 points)	
○ Daily Journals (must be legible)	(20 points)	
		Score _____ / 90 Possible Points

TOTAL SCORE: _____ / 100 Points