Build a Bridge Project

Project: Students will design, construct, and present a suspension bridge.

Materials:

Chart Paper	Wax Paper	Hot Glue	Popsicle Sticks *(optional)*
Ruler	Protractor	Twine	Rubber Bands *(optional)*
White Glue or Wood Glue		Round Toothpicks (200-400)	

Timeline for Project: (Subject to change)

Day 1 – Introduction of Project and Library Research on Suspension Bridges
Day 2 – Design Bridge on Chart Paper
- Not the same as teacher's bridge
- Must be done before building

Day 3-4 – Construct Bridge
Day 5 – Complete Bridge and Create Presentation
Day 6 – Presentations and Test of Strength Contest

Criteria:

Design: (chart paper)
–Full-scale model with measurements labeled
–Half-scale model with measurements labeled

Bridge:
–Minimum length of 10 inches and maximum length of 18 inches
–Minimum height of 2 inches (not counting the pillars)
–Minimum width of 2 inches
–White glue/wood glue is to be used to construct each section
–Replica of full scale design
–Hot glue used by teacher to complete the final construction

Presentation and Paper:
–Minimum of 5 minutes to discuss your concepts and predictions
–Minimum of one-page description of the process to build your bridge

Test of Strength Contest:
–Will your bridge withstand the weight of textbooks? How many textbooks?
–You must state the number of toothpicks used to determine equality

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Grading Scale:

25 points – Design on Chart Paper
Full scale, half scale and neatly designed

25 points – Bridge
Complete bridge that is a full-scale replica of design on chart paper.

25 points – Presentation and Paper
Present your concepts in front of the class along with a one-page description of how to build your bridge.

Total Points Possible – 75

Build a Bridge Project
Grade Sheet

Name: _____

Design	_____/25
Bridge	_____/25
Presentation/Paper	_____/25
Total	_____/75