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

http://teacher.scholastic.com
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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