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Wednesday Challenge Form

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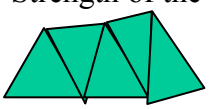
Problem Statement: Make a spaghetti bridge, with spaghetti sticks and wood glue. The goal is too make the highest efficiency bridge. Efficiency is defined as the ratio of supported bridge weight to the mass of the bridge. The supported weight will be provided by water. The span will be 24 inches. Each group will be provided 100 pieces of spaghetti, however only 20 can be used in the final design. In addition, the bridge must accommodate the weight attachment hardware provided by Mr. Neat.

Approach: We started out with a triangular bridge, in hopes that we could utilize the Strength of the triangle… after all it was the strongest shape.



The approch that made us win was the idea of the triangle. Our design had to be Very light, but, very rigid. Dr. Neat commented that the same principles were applied in space.

Solution: Bridge weight: 29.5 grams; Water weight: 138 = Score:4.6

Lessons Learned: Make smaller prototypes, and Then, build a bigger prototype to test.