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Marshmallow Breakdown

The purpose of this project was to test which bridge design would stand the longest in an earthquake, because too many bridges don't have proper structures. I hypothesized that the Pony Truss would stand the longest just for the simple fact that it has a wider broader base.

The experiment consisted of engineering three different bridge structures out of marshmallows and tooth picks. The three different designs I made were the Pony Truss, Through Truss, and Deck Truss. Then I connected the bridges to two tables with glue dots and shook the tables simulating an earthquake. Then I took notes in my findings.

The data that I collected supported my hypotheses, because in the first trial, the Deck Truss stood for 40 seconds. The second time it stood for 32 seconds and the third time it was 35. In the first trial, the Pony Truss stood for 45 seconds. The second time it stood for 44 seconds and the third time it was 40 seconds. In the first trial, the Through Truss stood for 15 seconds. The second time it stood for 20 seconds and the third time it was 30 seconds.

These findings lead me to believe that the Pony Truss was the strongest bridge structure that I tested. I also found out that the worst bridge I tested was the Through Truss.