



Gumdrop Structure Challenge

MATERIALS

- 10 Gumdrops
- 20 Toothpicks
- 1 Ruler
- Book
- Pencil



Setting the Stage

Using 10 gumdrops and 20 toothpicks design a structure that can hold the weight of a large book for 20 seconds. Your structure must be at least 1 inch above the surface you build on.

Using your STEM knowledge – Think about Science and Math- when working on physics and shape comparisons.

Engineering and Technology – to help with load distribution and building structure.

Build Time

Make your predictions on the activity sheet.

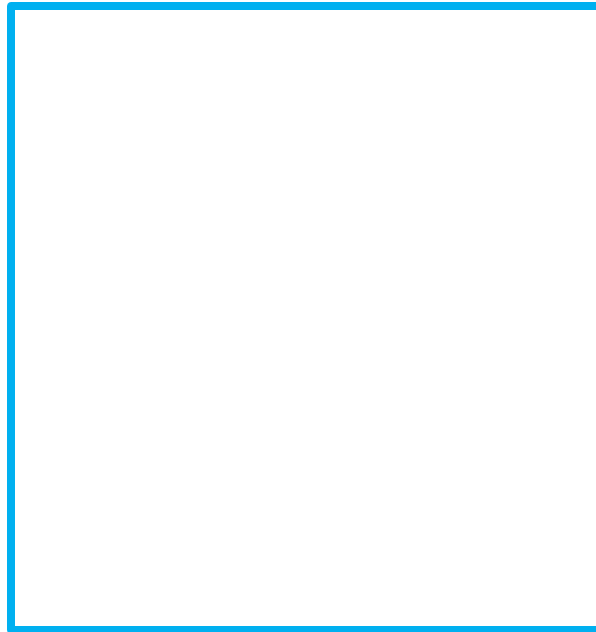
- Which shape house will hold the weight of the book the longest? Square, triangle, diamond?
- How long will your structure hold the weight?
- If you had more materials how would you make your home stronger?

Draw a design of the structure you want to build. Take measurements and label these on your sketch.

Using your design build your structure. Now, that it's done place a book on top of your structure for 20 seconds.



Sketch your structure
before you build



Make your
predictions

Conclusion Questions

Did your structure hold up under testing?

If so, why was the design successful?

If not, what could you do to improve the design?

What did you learn while doing this activity?
