



Toothpick Structures

Challenge:

- Build a structure made out of toothpicks and gumdrops (or **stale** mini marsh-mallows).
- Make a structure that is strong enough to hold a book.
- Who in your family can make the tallest structure?

Supplies:

- Toothpicks with points on both ends and gumdrops, or gummy bears, or cut up gummy worms. If you leave mini marsh-mallows on the counter over night they get hard and work well too.

[Slideshow Presentation](#)

["Strong Structures with Triangles" video by Design Squad](#)

Students should watch the video from Design Squad to learn the importance of a triangle.

For a strong structure build many units using three tooth picks and three gumdrops making a triangular shape. Then attach them together.

Try units of four making cubes and compare.

Try making mini pyramids. Are they strong?

Did your structure fall? Why? How can you improve the structure?

Which technique is best for strong structures and which is best for tall structures?

