

Name(s): _____ Date: _____ Hour: _____

Gumdrop Structure Challenge

The Challenge: Using 10 gumdrops and 20 toothpicks, design a structure that can hold the weight of as many textbooks as possible.

Build a gumdrop house using the following shapes. Record the house's height and width in centimeters in the measurement column. Then describe what happened to the house after testing.

I predict that the _____ shaped house will be able to hold the most weight.

Shape	Measurements	Testing Results
Square		
Triangle		
Diamond		
Your Choice		

1. What shape made the weakest home?
2. What shape made the strongest home? Why do you think this was the case?
3. If you had more gumdrops and toothpicks how would you make your home stronger?
4. How did the shape of your choice compare to the others?

5. If you could redesign your choice, what would you do differently? Make a sketch of your new design below and describe why you chose that shape/design. Now build and test it. Was it better than your original choice?