

Before the walk-through

We will be reviewing the results of our composite beam testing. Look at and identify the materials displayed. What materials do you expect will improve the beam strength?

Look at the beams. Which beam do you think was the strongest? _____

During the walk-through

Carefully inspect each beam. In the grid below identify materials used in each of the designs. Note the weight that the beam supported before it collapsed. Note anything else that you think might be relevant that you observe from looking at or handling the broken beams.

Beam ID#	CTRL	1	2	3	4	5	6	7	8		
Strength(lbs)											
Density (l,m,h)											
Hardness (l,m,h)											
Sand											
Gravel											
Steel Wire											
Fiberglass											
Carbon Fiber											
Newspaper											
Pipe Cleaner											

Notes:

After the walk-through

What were the common elements for the stronger designs?

What was unique about the strongest design?

What did you notice about the weaker designs?

Identify factors **outside of material choice** that affected the outcome.

What surprised you? What did you learn that was different than you expected?