

**TIERS**

**Tie breakers:** 1<sup>st</sup>:lightest tower; 2<sup>nd</sup> tallest tower

- 1. Met all construction parameters \_\_\_\_\_
- 2. Did not meet all construction parameters, but can be tested \_\_\_\_\_
- 3. Did not meet all Competition parameters, but can be tested \_\_\_\_\_
- 4. Could not be tested for any reason – rank by lowest mass \_\_\_\_\_
- 5. Disqualified – bad behavior by student, parent or coach **DQ** \_\_\_\_\_

School \_\_\_\_\_ Team \_\_\_\_\_

Students \_\_\_\_\_ & \_\_\_\_\_

**Construction Parameters:**

- 1. Tower is a single structure Y N
- 2. No materials other than plain wood and glue Y N  
Lamination by students is OK
- 3. Tower spans 20 cm X 20 cm square opening on test base Y N
- 4. Tower accommodates loading block 5.0cm x 5.0cm square x 2.0cm thick Y N
- 5. All parts of loading block **MIN 40.0 cm** above testing platform Y N
- 6. The weight is supported only by the loading block.
- 7. Portion of tower > 30.0 cm above testing platform passes through a circular opening 8.0 cm in diameter Y N
- 8. No portion of tower is below the top surface of the testing platform And there is no bracing against test base for lateral support Y N
- 9. The chain from the center of the loading block must be  $\leq 2.5$ cm from the center of the opening in the testing platform Y N
- 10. NO outside assistance or materials after students enter event area Y N
- 11. No alterations or repairs made after check-in Y N
- 12. No tower adjustments after sand loading began Y N

**Combined mass of loading block, attaching hardware, bucket + sand = 15.0** \_\_\_\_\_

**Testing:** Use stopwatch – **10 min MAX** to position tower and load sand

Both contestants wore safety glasses \_\_\_\_\_ **Tower Height** \_\_\_\_\_ cm

**End of Testing:** Min. = 40 cm, Max = 70 cm

Held 15 kg sand + bucket and attachments \_\_\_\_\_ Measured from base of loading block if >70 cm, score as 70.0 cm

Tower failure \_\_\_\_\_

Exceeded 10 minutes for loading sand \_\_\_\_\_

Rod/chain holding load in contact with any part of the tower \_\_\_\_\_

**SUPPORTED LOAD** \_\_\_\_\_ **Kg**  
 Max = 15.0 Kg = 15,000 g

\_\_\_\_\_ X (TOWER HEIGHT -5 \_\_\_\_\_ cm) = \_\_\_\_\_  
 To nearest 0.1 cm **SCORE**

**MASS OF TOWER** \_\_\_\_\_ **g**  
 To nearest 0.01 g