**Structures Unit Test Review**

**Types of structures (*connect to* *examples from real life)***

-shell, frame, & solid

-combination structures

-form and function descriptions / explanations

**Forces & effects of force *(explain/diagrams/flow chart)***

-loads & forces: torsion, tension, compression, shear, bending

-gravity

-mass vs. weight

-dynamic and static forces and loads

-magnitude, direction, & point / plane of application

-internal and external forces

**Stable structures / balance *(explain)***

-stability

-center of gravity

-ways to improve stability: wide base, weight low, strong shapes (tri, cylinder, arch/ dome)

**Strength in structures & bridges *(compare, calculate, explain, examples)***

-material comparisons

-structural efficiency calculation and comparison

-corrugation, lamination, and weaving

-components: span, beam, column, truss, buttress, arch, joint, adhesive, guy, strut, tie, cable

-structural stress, fatigue, failure (explain, examples)

**Types of Bridges - Webquest *(match with pic, explain pros / cons)***

-beam

-suspension / cable stayed

-truss / cantilever

-arch