HDS BRIDGE COMPETITION

GOAL: Design the strongest bridge

TOOLS:
   *TinkerCAD - this is much easier to use than Sketchup - https://www.tinkercad.com/ Sketchup and the HDS 3D printer.

PROCESS
1. Use TinkerCAD/Sketchup to design your bridge - YOU must design the bridge yourself and be able to demonstrate how you did it - no downloads etc.
2. Download the Starter
   a. TinkerCAD - CLICK HERE FOR INSTRUCTIONS
   b. Sketchup Starter file containing the "road". This will form the base for your bridge.
3. Bring in, email or "share" your file - Please name the file so that it has your first and last name in it as well as your year of graduation. An example might be 16johnsmithbridge.
      NOTE : PLEASE Share/email to jgapp@harborday.org
4. Our HDS panel will judge the design for 3D printability. If deemed unbuildable then you can redesign and resubmit at a later date.

JUDGING
1. The Bridge will be suspended at both ends. The location of the suspension is at the visible marks about 1" in from the end.
2. Weights will be hung from the center of the bridge until the bridge snaps.
3. The winner will be determined using the following formula.

$$\frac{Weight\ suspended\ in\ POUNDS}{Weight\ of\ bridge\ in\ GRAMS}$$

4. The current winner will be posted on BRIDGE competition board.

HELP, TIPS, OTHER...
- Sketchup tutorials.
- #1 issue with 3D and google is reversing faces - See link here and <here>.
- Time Lapse video of 3D printing of first test bridge.
- Video of bridge assembly @ HDS on 1-29-14.