

Books on Stilts - Engineering Fun!

Introduction:

We have all heard the phrase "couldn't fight their way out of a paper bag"; but how strong is paper? Activate your engineering skills by seeing how many books you can hold up using just paper and some tape! Experiment with different shapes, the height and tightness of stilts and discover which can support the most books!

Equipment

- Tape / glue
- 4 12 sheets A4 paper
- Lots of books (1 needs to be hardback)

Instructions:

- 1. Decide how tight, the height and what shape you are going to use to make the stilts: circle, square, triangle etc.
- 2. Use 1 sheet for each stilt and make 4 of the same stilts per experiment / pile of books.

 *Have multiple experiment with different shapes, tightness and sizes!
- 3. Place the 4 stilts onto a flat surface and carefully put a hardback book on top first.
- 4. Continue putting books on top until it fails.
- 5. Measure the weight by putting them onto bathroom scales or hold the books on bathroom scales and taking this from your weight.

Challenge your friends and family to see if they can beat your score – mine is \underline{x} books ()

