Cambridge University Engineering Department



Try this at home! Make your own dome



TAKE HOME KIT:

- tube roller
- bag of nuts and bolts

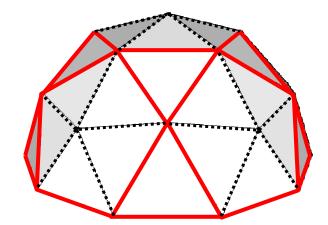
To make strong structures you will also need:

- A4 paper
- sellotape or masking tape
- scissors
- hole punch an ordinary hole punch will do!

A **geodesic dome** is made of interlocking triangles. These domes are particularly strong because the loads are spread over many triangles. Try making this simple dome at home.

- 1. You will need to roll
- 35 tubes of length 30cm (long side of A4 paper)
- 30 tubes of length 26cm. You can either cut the paper to length 26cm before rolling or cut the rolled tube.
- Top Tip: Mark the shorter tubes with a coloured pen. This will help you to identify the 2 different lengths later.
- 2. Lay out 10 long tubes to make a large circle, this is the base.
- 3. Build up the dome row by row working from the base circle up towards the top.
- Top Tip: Visit this great on-line tutorial for a rolled newspaper dome www.yesmag.ca/projects/geodesic.html





IDEAS TO TRY AT HOME

- Make it weather proof by replacing the paper with acetate sheets (used for overhead projectors transparencies).
- •Try a larger and more complicated design. Go to desertdomes.com/domecalc.html to calculate the number and length of tubes needed for larger designs.

