

DOMES

How to build a sugar paper dome. ONE PAGE—Super Quick instructions:

You will need.....

35 pieces of sugar paper which should be 880mm on the long edge

30 pieces of sugar paper which is cut down to 790mm on the long edge

Lots of staples

Dowel rods to roll the paper around

Lots of clear tape

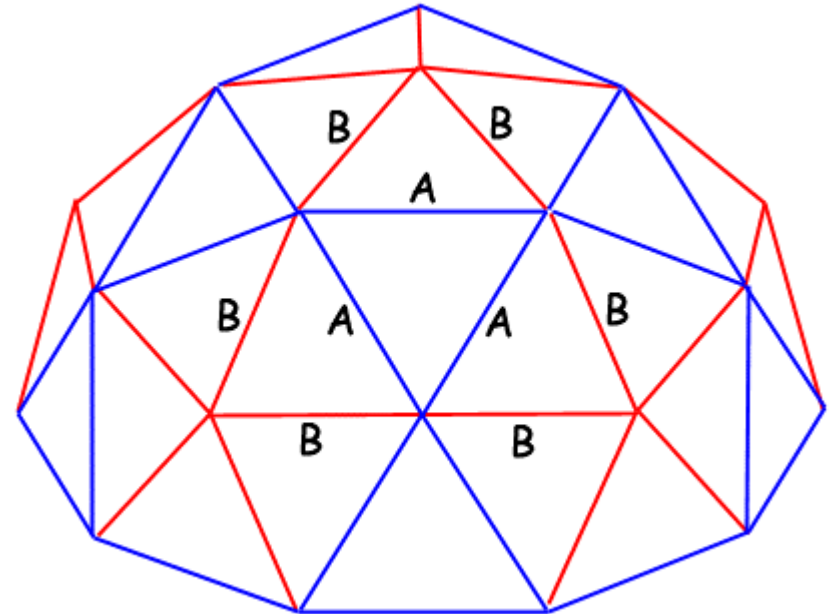
IT IS ESSENTIAL, IF YOU DON'T WANT TO GO NUTS, TO USE 2 DIFFERENT COLOURS FOR THE SUGAR PAPER SO YOU KNOW WHICH PIECE IS WHICH

Quick Instructions.

Roll all the sugar paper into tubes around a small (13mm) dowel rod and tape along the edge.

Crease exactly 4cm from each end and put in a staple along the crease.

Staple together to make the dome shape starting from the base and working upwards, bending the ends of the tubes at the 40mm crease and stapling as close to the crease as possible.



Pieces marked **A in Blue** are 800mm long and made from the 880mm sugar paper tubes with 40mm bent in at each end

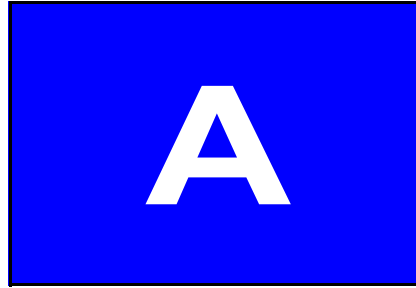
Pieces marked **B in Red** are 710mm long and made from 790 mm sugar paper tubes with 40mm bent in at each end

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How to build a sugar paper dome. STAGE BY STAGE:

Resources Needed:

35 pieces of **BLUE** sugar paper which should be 880mm on the long edge.



30 pieces of **RED** sugar paper which is cut down to 790mm on the long edge.

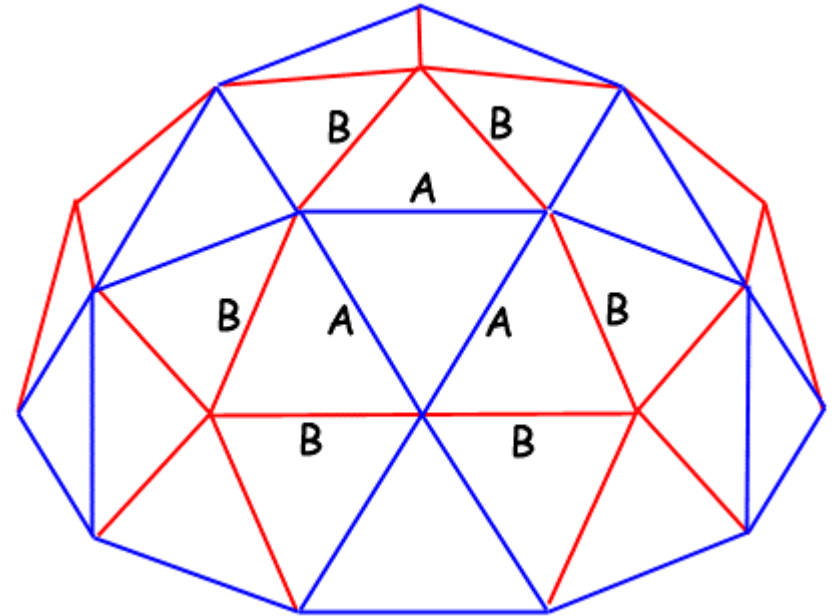


Heavy Duty Stapler and Staples

13mm Dowel rods to roll the paper around

Sellotape

Infinite Patience.....



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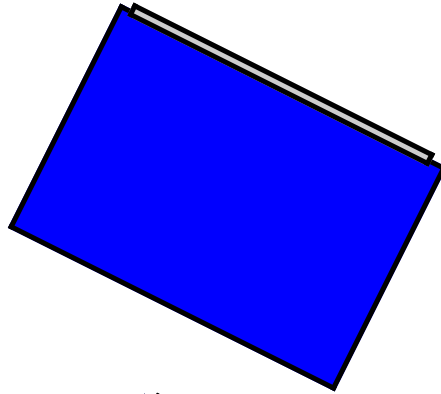
Pieces marked **B in Red** are 710mm long and made from 790 mm sugar paper tubes with 40mm bent in at each end

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How to build a sugar paper dome. STAGE BY STAGE:

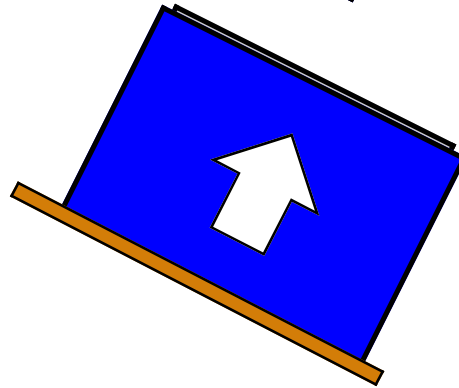
Stage 1:

Stick a piece of Sellotape to the long edge of a piece of sugar paper



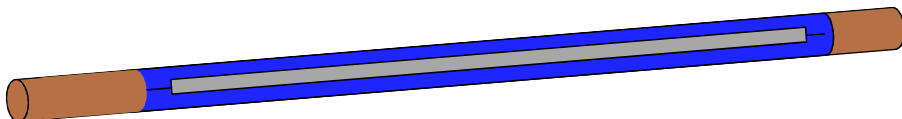
Stage 2:

Place the paper and Sellotape sticky side up and roll around the dowel. Take care to keep it level as you roll



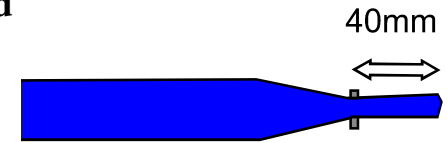
Stage 3:

Roll tightly around the dowel until it is all rolled up and the tape is holding it all together
And then slide out the dowel



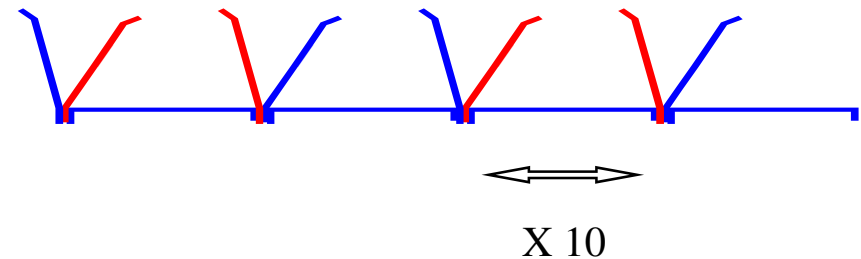
Stage 4:

Flatten the ends of the rolled tube and staple exactly 40mm from each end



Stage 5:

Staple 10 blue tubes in a row, with a red and blue tube stapled at each joint of the ring as shown below.
Don't put the red and blue tube on the last end as it will join back to the first end later

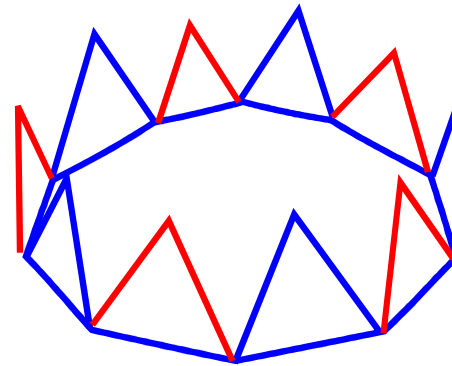


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How to build a sugar paper dome. STAGE BY STAGE:

Stage 6:

Staple the ends of the ring together to give a circle with blue and red triangles above it
You may find it easier to staple these together now



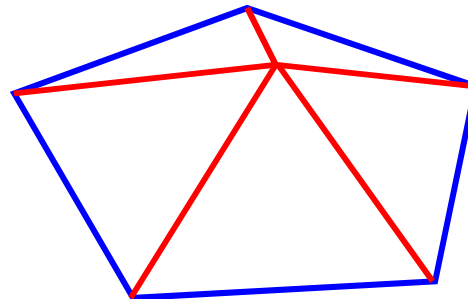
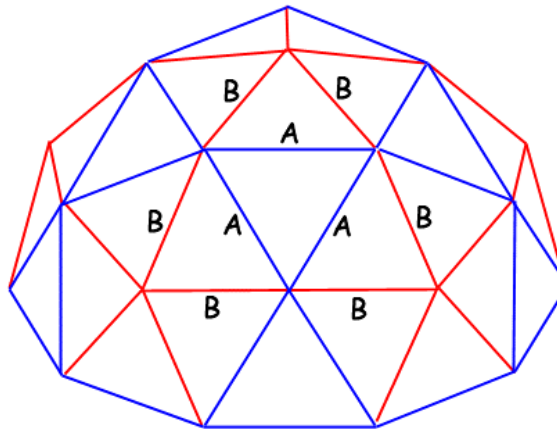
Stage 7:

Following this diagram, complete the dome, stapling together the red and blue remaining tubes as required

Take care that the staples are put in as close as possible to the 40mm end folds or your dome will not be domed and may not even support its own weight

Tip:

Note: The top pentagon is made up of five red tubes bordered by 5 blue tubes. You may find it easier to make this piece in one section and fix it into position last



This help sheet would not be possible without the help of the following websites.

http://www.geodesics-unlimited.com/geodesic_dome_theory.htm

Company which sells commercial domes and whose website has lots of good info

<http://www.designmuseum.org>

British Design Museum. Has an excellent article on Buckminster Fuller

<http://www.bfi.org/>

The Buckminster Fuller Institute. Buckminster Fuller came up with the idea of the geodesic dome

<http://web.aanet.com.au/robertw/Stella.html>

Homepage for the Great Stella program which enables you to make many many dodecahedrons and other mathematical shapes that domes are based on. The great stella program is shareware but the demo version lets you build all the standard dome models

<http://www.domehome.com/>

Make your own home... in a dome

[Http://www.wikipedia.com](http://www.wikipedia.com)

Look up geodesic domes for a good list of why and why not domes make good structures

[Http://www.desertdomes.com](http://www.desertdomes.com)

Company that sells domes and crucially, has a dome calculator for 2v to 6v construction so you can input your sizes and it tells you how many bits of what size and how many joiners you need