

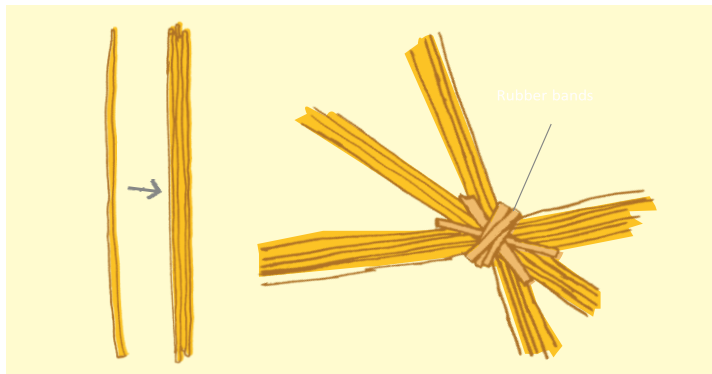
Transition Engineering Challenge

The Brief

Construct a free-standing bridge out of spaghetti strong enough to support a 250g bag of sugar (or anything really)

The Method

Think about bracing strands together for strength. Some shapes are better at absorbing loads – triangles are particularly strong. Rubber bands make for good junctions.



How does it work?

Bridges manage two important forces: compression and tension – pushing and pulling. Too much of either and they buckle or snap.

Design icons

Why not take inspiration from these iconic bridge designs?



Beam bridge



Truss bridge



Cable stayed bridge



Arch bridge



Suspension bridge



Cantilever bridge

Materials

Spaghetti

Small rubber bands or bag ties Sticky tape

250g bag of sugar

Show me how it's done!

Here is a picture of how one of our year 7's solved the problem.

Any Clues?

Yes, just here,

<https://youtu.be/Pp9U6lyolgg>

