

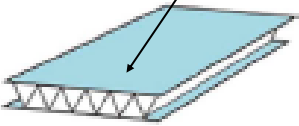
Year 3 Design and Technology: Structures

Key Learning

Design

My design is for _____
My design will move by _____

A **prototype** is the first version made of a product to check that the design will work. There may be some problems with it which will need changing.



Corrugation is a method of strengthening paper or card material by zig zagging a piece of paper/card and gluing it between 2 layers of paper/card.



Balloon

Plastic

Tape or elastic bands make a seal



Squeezy bottle

Tabs are used to join two pieces of cardboard together. You can stick these together using a glue gun, sellotape or pva glue.

Pneumatics use air to make things move. You squeeze the bottle (input movement) and air moves through the tube and into the balloon which **inflates** and moves the toy.

Make



Strips of paper can be mixed with glue and laid on top of a structure. When they dry, the structure will be stronger and you can paint it to create a professional finish. This is called **paper mâché**.

Evaluate

I think my product does / does not fulfil its function because...

My product is suitable for the user because...

I could improve on...

Technical Knowledge

Key Vocabulary

corrugation	A method of strengthening paper or card.
deflate	Remove air to make an object shrink e.g. balloon.
inflate	Fill something with air or gas to make it swell up.
input movement	What goes into a system e.g. squeezing air into a bottle which then flows through a tube.
lever	Beam which turns about a point.
output movement	What comes out of a system e.g. the air coming out of a tube.
paper mâché	Small pieces of paper (pulp) mixed with glue laid on a structure which then become hard when dry. Can paint for a professional finish.
pneumatics	System that works using gases or air.
tabs	A small piece of card or paper that can be used to join 2 pieces of card or paper together.