

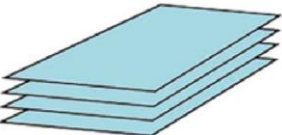
Year 3 DT – Shell Structures

Key Vocabulary	
Shell structure	A hollow structure with a thin outer covering
Two-dimensional (2-D) shape	A flat shape that has two dimensions, length and width
three-dimensional (3-D) shape	A solid shape that has three dimensions, , length, width and height
Net	the flat or opened-out shape of an object such as a box
Tab	A flap of paper that is used to join two edges
Cuboid	A solid shape with rectangular sides
Prism	A solid shape whose two ends are the same
Laminating	To glue together several layers of paper
Corrugating	Zig-zag a piece of paper or card between two layers of paper
Ribbing	Gluing layers of straws between layers of paper
Stiffen	The process of making a material stronger
Scoring	To press a line into material to make it easier to fold
Assemble	To fit all the component parts together

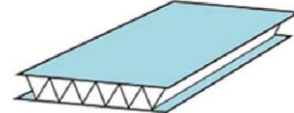
Key knowledge	
<ul style="list-style-type: none"> • To know how a 3-D shape can be made using a net made from 2-D shapes. • To know and apply techniques to strengthen paper. • To understand how accuracy when cutting and assembling will improve the final product. • To use a ruler and scissors competently when making a net. • To fold along a line neatly by scoring first. 	

Skills and techniques

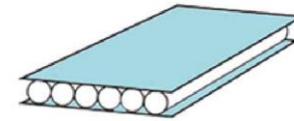
Stiffening and strengthening sheet materials:




Laminating – glue together several layers of card



Corrugating – zig-zag a piece of paper or card and glue in between two layers of card

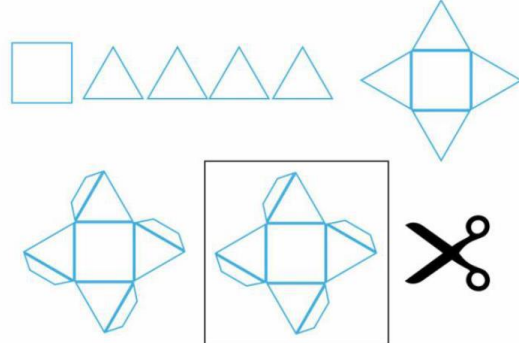


Ribbing – glue layers of straws between layers of card

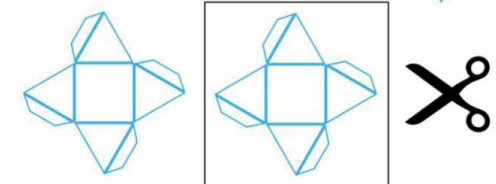


Scoring – press a line into your paper to make it easier to fold accurately

Create the net for the product you are designing:



Draw the faces and stick them together



Add tabs, glue your paper net onto card and cut out

Thomas Heatherwick - English designer from London, UK



<https://www.heatherwick.com/>

