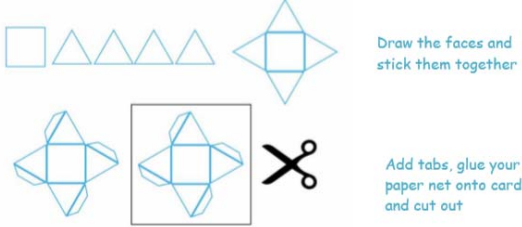

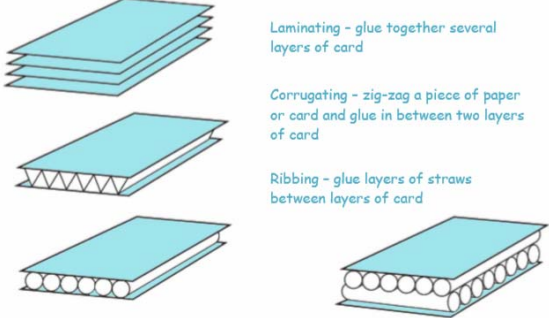


# Year 3/4: Shell Structures-What is the best way to build a desk tidy?

Subject Specific Vocabulary		Prior Learning Y1/2	Sticky Knowledge
<b>cuboid</b>	a solid body with rectangular sides.	Experience of using different joining, cutting and finishing techniques with paper and card. A basic understanding of 2-D and 3-D shapes in mathematics and the physical properties and everyday uses of materials in science	
<b>edge</b>	where two surfaces meet at an angle.	<b>Future Learning Y5/6</b>	
<b>face</b>	a surface of a geometric shape.	<p>Carry out research into existing products before developing a design criteria. Formulate a clear plan using step by step instructions.</p> <p>Work safely with a greater range of tools and materials including: hacksaws, bench hooks and hand drills.</p> <h2 style="text-align: center;">Desk Tidy</h2> 	<ul style="list-style-type: none"> <li>• Generate realistic ideas based on the preferences of the user and the purpose of the product.</li> <li>• Find ways to strengthen sheet materials that could include: layering, laminating or corrugating.</li> <li>• Investigate the construction of different nets.</li> <li>• Use computer aided design to construct their own net.</li> <li>• Evaluate throughout the designing and construction process to create a product fit for purpose.</li> </ul>  <p>Laminating - glue together several layers of card</p> <p>Corrugating - zig-zag a piece of paper or card and glue in between two layers of card</p> <p>Ribbing - glue layers of straws between layers of card</p>
<b>font</b>	a printer's term meaning the style of lettering being used.		
<b>net</b>	the flat or opened-out shape of an object such as a box.		
<b>prism</b>	a solid geometric shape with ends that are similar, equal and parallel.		
<b>scoring</b>	cutting a line or mark into sheet material to make it easier to fold.		
<b>shell structure</b>	a hollow structure with a thin outer covering.		
<b>vertex</b>	used to refer to the corners of a solid geometric shape, where edges meet.		