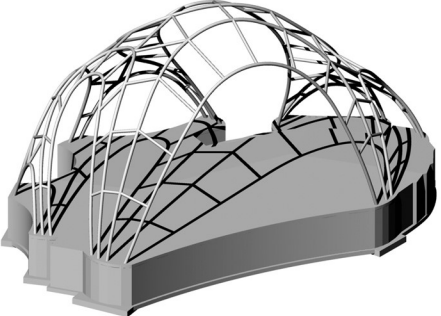
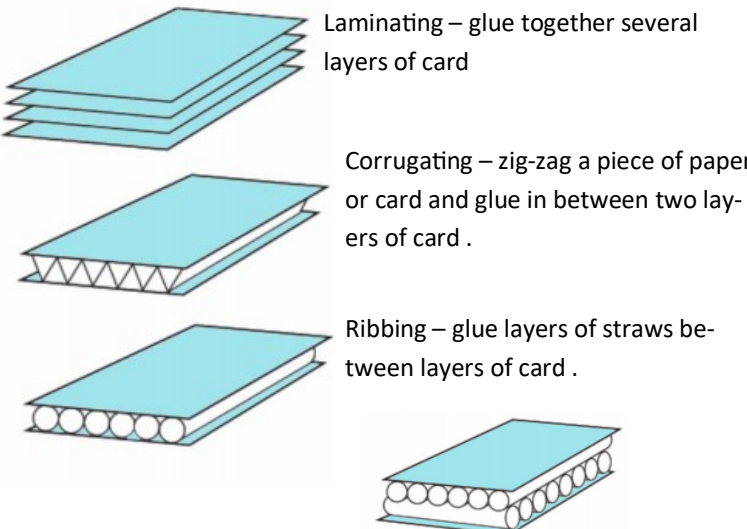
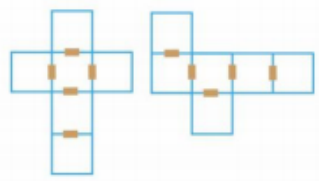
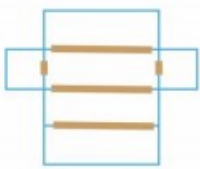
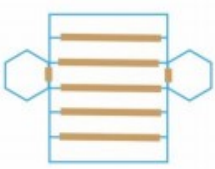




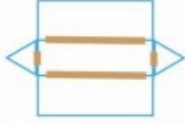


Year 3 Structures (shell structures)

Prior Learning: 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.

Facts	Vocabulary
<p>A shell structure is a hollow structure with a thin outer layer.</p> 	<ol style="list-style-type: none"> 1. Face – a surface of a geometric shape. 2. Net – the flat or opened-out shape of an object such as a box. 3. Prism – a solid geometric shape with ends that are similar, equal and parallel. 4. Vertex – used to refer to the corners of a solid geometric shape, where edges meet. 5. Scoring – cutting a line or mark into sheet material to make it easier to fold.
<p>Stiffening and strengthening sheet materials.</p>  <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>	<p>To assemble and evaluate 3-D shapes using standard sized card squares, rectangles, equilateral triangles, isosceles triangles and hexagons, joined with masking tape.</p>  <p align="center">Nets for cubes</p>  <p>Cuboid net</p>  <p>Hexagonal prism net</p>
<p>Many building use shell structures such as the Shard and the O2 in London.</p> 	 <p>Tetrahedron net</p>  <p>Hexagonal based pyramid net</p>  <p>Square based pyramid net</p>  <p>Triangular prism net</p>