



# Technology Department (Engineering): Curriculum Map Key Stage 3 2018-19



Year 7	Year 8	Year 9
<p><b>Flower Project</b></p> <p>Year 7 project the students learn about:</p> <p>Researching ideas.</p> <p>Use of 2D and 3D sketches to communicate ideas.</p> <p>Marking out and measuring techniques.</p> <p>Pine - Grain lines and weaknesses with timbers (Long grain/ short grain) including the use of dowel joints and friction fits.</p> <p>Man-made boards (MDF) and the pros and cons of using timbers or man-made boards.</p> <p>Cutting, shaping and smoothing timbers/ MMBs - Coping saw, Tenon saw, hand files (Cross-filing) and Glass paper to smooth.</p> <p>Use of electric drills and PVA</p>	<p><b>Desk Tidy Project</b></p> <p>Year 8 project the students learn about:</p> <p>Research and consideration of existing products.</p> <p>Use of 2D and 3D Oblique sketches to communicate ideas.</p> <p>Marking out and measuring techniques including use of calipers/ verniers.</p> <p>Pine - Grain lines and weaknesses with timbers (Long grain/ short grain) including the use of dowel joints and friction fits.</p> <p>Man-made boards (MDF) and the pros and cons of using timbers or man-made boards.</p> <p>Cutting, shaping and smoothing timbers/ MMBs - Coping saw, Tenon saw, hand files (Cross-filing) and Glass paper to smooth.</p> <p>Use of electric drills and PVA</p>	<p><b>Puzzle Project</b></p> <p>Year 9 project the students learn about:</p> <p>Research, consideration of existing products and product analysis</p> <p>Use of 2D and 3D, Oblique and Isometric sketches and CAD to communicate ideas.</p> <p>Marking out and measuring techniques.</p> <p>Pine - Grain lines and weaknesses with timbers (Long grain/ short grain) including the use of dowel joints and friction fits.</p> <p>Man-made boards (MDF) and the pros and cons of using timbers or man-made boards.</p> <p>Cutting, shaping and smoothing timbers/ MMBs - Coping saw, Tenon saw, hand files (Cross-filing and draw filing) and Glass paper to smooth.</p> <p>Use of electric drills and PVA</p>
<p>Since Engineering Design is a new subject at St Edmunds school the aim in this first year is provide students with foundation skills needed to use a wide range of tools and equipment safely in the workshop environment. Once the foundation knowledge is secure a breath of engineering materials including plastics and metals will be introduced, including a range of production techniques including vacuum forming, line bending and CAD/CAM through use of 2D Design software and the laser cutter.</p>		