

# Art and Design Curriculum map 2018-2019

Design & Technology	Half term 1 New & emerging Technologies	Half term 2 Energy, materials, systems & devices	Half term 3 Materials & their working properties	Half term 4 Common specialist technical principles	Half term 5 Papers & Boards	Half term 6 Timber based materials
Year 10	<p>The impact of new and emerging technologies e.g.</p> <ul style="list-style-type: none"> <li>design and organisation of the workplace</li> <li>including the use of robotics</li> <li>Impact of consumption on the planet:                             <ul style="list-style-type: none"> <li>finite</li> <li>non-finite</li> <li>Disposal of waste</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>How energy is generated and stored and how this is used</li> <li>Basis for the selection of products and power systems.</li> <li>How power is generated from coal, gas, oil</li> <li>Arguments for and against the selection of fossil fuels</li> </ul>	<ul style="list-style-type: none"> <li>Developments made through the invention</li> <li>New processes e.g. Graphene and Titanium.</li> <li>Coated metals, Liquid Crystal Displays (LCDs) and</li> <li>Nanomaterials</li> <li>Smart materials e.g. Thermo-chromic</li> </ul>	<ul style="list-style-type: none"> <li>In relation to <b>at least one</b> material category or system</li> <li>Select materials</li> <li>Functionality: application of use, ease of working.</li> <li>Aesthetics: surface finish, texture and colour.</li> </ul>	<p>The main categories and types of papers and boards. Papers including:</p> <ul style="list-style-type: none"> <li>bleed proof</li> <li>cartridge paper</li> <li>grid</li> <li>layout paper</li> </ul>	<p>Main categories and types of natural and manufactured timbers:</p> <p>Hardwoods including:</p> <ul style="list-style-type: none"> <li>ash</li> <li>beech</li> <li>mahogany</li> <li>oak</li> <li>balsa</li> </ul> <p>Softwoods including:</p> <ul style="list-style-type: none"> <li>larch</li> <li>pine</li> </ul>
Year 11	<b>Theory Topics:</b> Metal based materials	<b>Theory Topics:</b> Polymers	<b>Theory Topics:</b> Textile based materials	<b>Theory Topics:</b> Designing principles	<b>Theory Topics:</b> Making principles	Exam revision and preparation