

Year	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
7	<p>Topic: User-Centred Design. 'Door hanging signage'</p> <p>Resources: Custom workbook. Drawing equipment. MDF blanks. Workshop tools and machinery.</p> <p>Focus: HEALTH & SAFETY INDUCTION. Marking out using basic geometry using a range of tools. Introduction to hand tools and basic machinery. Making door hanger 'blank'. Investigation into potential user. Design Ideas.</p> <p>Outcome: Awareness of user-centred designing to create unique design solutions. Practical experience.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: User-Centred Design. 'Door hanging signage'</p> <p>Resources: Custom workbook. Drawing equipment/card. MDF offcuts. Workshop tools and machinery.</p> <p>Focus: Design development. Use of templates. Making design additions. Use of increased range of tools and equipment.</p> <p>Outcome: Unique practical outcome. Increased workshop experience and confidence.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: User-Centred Design. 'Door hanging signage'</p> <p>Resources: Custom workbook. Workshop tools and machinery. CAD/CAM equipment. Wood dye.</p> <p>Focus: Making final door hangers. CAD/CAM additions using Laser cutter and Vinyl cutter. Decorating and finishing techniques using wood dyes.</p> <p>Outcome: Unique practical outcome. Awareness of commercial production techniques. Completed workbook showing full designing & making cycle.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Designing to a theme. 'Sea life Pewter Jewellery'</p> <p>Resources: Custom workbook. Image bank/internet research. Drawing equipment/templates.</p> <p>Focus: Investigation into jewellery from around the world. Investigation into sea life. Design ideas.</p> <p>Outcome: Independent analysis of task and research materials. Range of unique ideas.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Designing to a theme. 'Sea life Pewter Jewellery'</p> <p>Resources: Custom workbook. Drawing equipment/templates. MDF mould blocks. Workshop tools and machinery. Pewter & casting equipment.</p> <p>Focus: Development and evaluation of ideas using iterative designing and peer feedback. Making moulds and casting. Tools & materials processes theory.</p> <p>Outcome: Unique design solutions. Unique cast pewter jewellery piece.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Designing to a theme. 'Sea life Pewter Jewellery'</p> <p>Resources: Custom workbook. Pewter finishing and polishing equipment.</p> <p>Focus: Making, finishing & polishing using a range of processes. Focus on high quality outcomes. Consideration of costings and commercial considerations. Testing & evaluation.</p> <p>Outcome: Completed unique jewellery piece. Completed workbook showing full designing & making cycle.</p> <p>Duration: 3-4 lessons.</p>
8	<p>Topic: Iterative Design. 'Attracting Wildlife'</p> <p>Resources: Custom workbook. Sketching, drawing and low-tech modelling equipment. ICT & CAD/CAM equipment.</p> <p>Focus: Investigating wildlife found in the garden. Biomimicry within design. Sketching and drawing skills. Modelling techniques.</p> <p>Outcome: Awareness of iterative designing processes. Developed models of outcomes prior to making.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Iterative Design. 'Attracting Wildlife'</p> <p>Resources: Custom workbook. High Impact Polystyrene (HIPS). MDF for moulds. Aluminium offcuts. Workshop tools and machinery. CAD/CAM equipment.</p> <p>Focus: Introduction to polymers and the vacuum forming process. Making MDF forming moulds. Introduction to metals and working with aluminium. Planning and making a solution for attracting wildlife. Environmental impacts.</p> <p>Outcome: Increased technical knowledge and practical experience with new materials, machinery and processes.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Iterative Design. 'Attracting Wildlife'</p> <p>Resources: Custom workbook. High Impact Polystyrene (HIPS). MDF for moulds. Aluminium offcuts. Workshop tools and machinery. CAD/CAM equipment.</p> <p>Focus: Using knowledge of metals, plastics and associated tools and machinery to make a customised wildlife attracting solution. Using CAD/CAM to enhance outcomes. Joining and finishing different materials.</p> <p>Outcome: Final customised wildlife attracting solution for home or the school site.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Constructional Techniques. 'Multi-functional Storage'</p> <p>Resources: Custom workbook. Timber strip cut to length. Workshop tools and machinery.</p> <p>Focus: Health & Safety Refresher. Marking out a basic frame using a range of processes. Cutting timber using a range of tools and machinery. Planning, tools & materials processes theory.</p> <p>Outcome: Range of new skills developed, increased practical experience and confidence. Awareness of planning for making and documenting practical stages.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Constructional Techniques. 'Multi-functional Storage'</p> <p>Resources: Custom workbook. Timber/polymers/metals — various pieces. Workshop tools and machinery. ICT access.</p> <p>Focus: Introduction to Design Movements. Cutting, joining and finishing materials using a range of tools and machinery. Planning, tools & materials processes theory.</p> <p>Outcome: Opportunity to use a wide range of machinery with independence and confidence. Assembly and finishing skills. Completed frame with options for customisation planned.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Constructional Techniques. 'Multi-functional Storage'</p> <p>Resources: Custom workbook. Completed timber frame. Various material offcuts. Workshop tools and machinery. ICT & CAD/CAM equipment.</p> <p>Focus: Investigating aesthetics and functionality. Planning for making through templates and cutting lists. Decorative and finishing skills using CAD/CAM, paint/dyes and associated techniques.</p> <p>Outcome: Fully customised storage unit, linked to a design movement, with added features and functionality.</p> <p>Duration: 3-4 lessons.</p>

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9	<p>Topic: Polymers. 'Phone Holder'</p> <p>Resources: Custom workbook. Modelling materials and tools. Workshop tools and machinery. CAD/CAM equipment.</p> <p>Focus: Polymers - 'raw material to stock forms' technical knowledge. Design ideas, modelling using a range of materials; card, high density foam, plastic offcuts.</p> <p>Outcome: Range of new technical skills and knowledge developed. Iterative designing processes.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Polymers. 'Phone Holder'</p> <p>Resources: Custom workbook. Acrylic and HIPS offcuts. Workshop tools and machinery.</p> <p>Focus: Plastic production processes. Iterative designing. Cutting/shaping/forming plastics and associated materials. Assembly and finishing.</p> <p>Outcome: Range of new technical skills and knowledge developed. Finished product developed after several modelling stages.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Timber. 'Task Light'</p> <p>Resources: Custom workbook. Timber offcuts. LED lights. Workshop tools and machinery. CAD/CAM equipment.</p> <p>Focus: Planning and making a task light using timber offcuts and LED lights.</p> <p>Outcome: LED Task light completed using a combination of hardwood, softwood and/or manufactured boards offcuts.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Timber. 'Task Light'</p> <p>Resources: Custom workbook. Timber offcuts. LED lights. Workshop tools and machinery.</p> <p>Focus: 2D/3D Design drawing skills. Soft woods, Hard woods & Manufactured boards technical knowledge. Investigating timber joinery techniques. Investigating task lighting.</p> <p>Outcome: Range of new technical skills and knowledge developed.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: Timber. 'Task Light'</p> <p>Resources: Custom workbook. Timber offcuts. LED lights. Workshop tools and machinery. CAD/CAM equipment.</p> <p>Focus: Timbers - 'raw material to stock forms' technical knowledge. Designing and modelling a task light using timber offcuts and LED lights.</p> <p>Outcome: Range of new technical skills and knowledge developed.</p> <p>Duration: 3-4 lessons.</p>	<p>Topic: STEM Challenges</p> <p>Resources: Variety of workshop materials and equipment.</p> <p>Focus: A selection of individual and team-based problem solving challenges. Bridge building, flying machines, marble run, batch production exercises.</p> <p>Outcome: Increased awareness of STEM subjects developed. Continued engagement for students who are not taking the GCSE D&T option in Year 10.</p> <p>Duration: 3-4 lessons.</p>
10	<p>Topic: Visual Communication</p> <p>Resources: Design sketching & rendering materials. CAD software.</p> <p>Focus: 2D & 3D sketching, tonal & surface rendering, CAD design.</p> <p>Outcome: A variety of essential visual communication skills necessary for the course developed.</p> <p>Duration: 9 lessons.</p>	<p>Topic: Ergonomics & Anthropometrics.</p> <p>Resources: Modelling materials. Pre-cut timber strips. Workshop tools and machinery.</p> <p>Focus: Making a customised, ergonomically designed pizza cutter. Knowledge & understanding of applications of anthropometric data.</p> <p>Outcome: Finished customised product.</p> <p>Duration: 9 lessons.</p>	<p>Topic: Sustainable Design.</p> <p>Resources: Offcut and reclaimed materials. Workshop tools and machinery.</p> <p>Focus: Impact on Society and global issues. Designing for a target user. Revision: Seneca learning online platform. CGP Guides.</p> <p>Outcome: Sustainably designed product. Increased exam awareness.</p> <p>Duration: 9 lessons.</p>	<p>Topic: Sustainable Design.</p> <p>Resources: Offcut and reclaimed materials. Workshop tools and machinery.</p> <p>Focus: Sustainability making challenge. Revision: Seneca learning online platform. CGP Guides.</p> <p>Outcome: Sustainably designed product. Increased exam awareness.</p> <p>Duration: 9 lessons.</p>	<p>Topic: The Work of Others.</p> <p>Resources: Design modelling materials.</p> <p>Focus: Designing to a theme in the style of prominent designers. Demonstrating independence when investigating/designing. Revision: Seneca learning online platform. CGP Guides.</p> <p>Outcome: Increased awareness of GCSE level design processes. Increased exam awareness.</p> <p>Duration: 9 lessons.</p>	<p>Topic: Non Exam Assessment (NEA).</p> <p>Resources: Revision guides and materials. Google Classroom NEA portfolio.</p> <p>Focus: NEA tasks released 1st June: Analysis/preparation. Revision: Seneca learning online platform. CGP Guides.</p> <p>Outcome: Increased awareness of GCSE Exam and NEA work.</p> <p>Duration: 9 lessons.</p>
11	<p>Topic: Non Exam Assessment (NEA) 100 marks total (50% of grade)</p> <p>Resources: Google Classroom Portfolio. Guidance worksheets.</p> <p>Focus: NEA Sections: A: Investigation (10 marks) B: Brief & Specification (10 marks) Revision: Seneca learning online platform. CGP Guides.</p> <p>Outcome: Student independent outcomes.</p> <p>Duration: Dependent on student.</p>	<p>Topic: Non Exam Assessment (NEA)</p> <p>Resources: Google Classroom Portfolio. Guidance worksheets.</p> <p>Focus: NEA Sections: C: Generating Ideas (20 marks) Mock Exam Preparation. Revision: Seneca learning online platform. CGP Guides.</p> <p>Outcome: Student independent outcomes.</p> <p>Duration: Dependent on student.</p>	<p>Topic: Non Exam Assessment (NEA)</p> <p>Resources: Google Classroom Portfolio. Guidance worksheets.</p> <p>Focus: NEA Sections: D: Developing Ideas (20marks) E: Realising Ideas: Making (20 marks) Revision: Seneca learning online platform. CGP Guides.</p> <p>Outcome: Student independent outcomes.</p> <p>Duration: Dependent on student.</p>	<p>Topic: Non Exam Assessment (NEA)</p> <p>Resources: Google Classroom Portfolio. Guidance worksheets.</p> <p>Focus: NEA Sections: E: Realising Ideas: Making (20 marks) F: Testing & Evaluation (20 marks) Revision: Seneca learning online platform. CGP Guides.</p> <p>Outcome: Student independent outcomes.</p> <p>Duration: Dependent on student.</p>	<p>Topic: Formal Exam Revision</p> <p>Resources: Revision materials.</p> <p>Focus: Core Technical Principles' 'Specialist Technical Principles' 'Designing & Making Principles'</p> <p>Outcome: Final exam (50% of grade) 2 hour written paper.</p> <p>Duration: 9 lessons.</p>	