

# Subject Long Term Plan Year 9 Design Technology 2021-22

## Temperance Term

W/C	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	HALF TERM
Topic	Baseline Test – Applique Fabric Bag			Baseline Intervention		Novelty Noughts and Crosses		
Core	<b>Basic draw string bag to gauge the retention level of Year 8 knowledge and accuracy with practical skills</b> <ul style="list-style-type: none"> <li>Review all aspects of the design process from Brief to Evaluation, focussing upon textile products</li> <li>Revisit textile skills/processes used for the swag bag in Y8</li> <li>Introduce applique as a short focussed practical task</li> <li>Design booklet template used to record student outcomes</li> <li>Review of the 11 Assessment Criteria (AC) and link them to GCSE DT AC</li> <li>Explore how to use the DT Sketchbook to record lesson work and how to develop one's own designer's brand</li> <li>Revisit Book-Smart</li> </ul>			<b>Individual tasks for each student as identified in the assessment of the baseline</b> <ul style="list-style-type: none"> <li>Students use the TA of the <i>Basic Draw String Bag</i> baseline to improve their work, supported by individual teacher feedback</li> <li>Intervention activities focus upon improving the standard of the baseline test in conjunction with TA</li> <li>Re-assessment of student work by the teacher. This will be recorded on the DT tracker and used for Y9 data drop 1</li> </ul>		<b>Ensure that students can confidently work with wood by making an existing product</b> <ul style="list-style-type: none"> <li>Revisit basic wood working skills for marking out, cutting by hand, drilling and sanding (hand and machine) of plywood</li> <li>Using the noughts and crosses template, each student makes a noughts and crosses (pairs are acceptable)</li> <li>Explore personalising the noughts and crosses through paint, collage and utilising other wood/compliant materials</li> <li>Students learn how to present their investigation in their sketchbooks and how this is used to create new products</li> </ul>		
Challenge	By outcome as it is a baseline test <b>Homework:</b> set 2 <i>Design like...</i> tasks focussing upon two of the most appropriate, in terms of the class being taught, from the AQA GCSE DT 16 designers			Exemplars indicate High, Medium and Low <b>Homework:</b> Time given to respond to teacher feedback with a focus on meeting GCSE DT AC		Developing a 3d product <b>Homework:</b> Extended homework: Investigation into board games; history, types, manufacture, materials, marketing...		
Assessment	<b>Self-assessment using the Header Sheet ACs</b> <b>Teacher assessment using the Header Sheet ACs</b>			<b>Self-assessment using the Header Sheet ACs</b> <b>Teacher assessment using the Header Sheet ACs</b>		<b>Self-assessment using the Header Sheet ACs</b> <b>Teacher assessment using the Header Sheet ACs</b>		

W/C	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	CHRISTMAS
Topic	Novelty Noughts and Crosses	Prototype travel board game		Felt Bacteria			
Core	See previous	<b>Create a travel board game using research, the investigation into the wooden noughts and crosses plus previous homework</b> <ul style="list-style-type: none"> <li>Analysis of a design Brief; this could be for a <i>Noughts and Crosses 2.0</i> but any simple board game concept is fine</li> <li>Analysis of the previous investigation and homework to identify a product specification</li> <li>Designing a product which meets the specification</li> <li>Modelling a board game, do this in groups of 2-4</li> <li>Explore roles of project management</li> <li>Marketing a product; Dragons Den approach. Use predetermined question cards: manufacture, construction, materials, costs, profits etc.</li> </ul>		<b>Mini design challenge: Working with a real client to make a soft felt toy</b> <ul style="list-style-type: none"> <li>Designing for a real client</li> <li>Analysis of a design Brief given by the client</li> <li>Exploring felt and sewing with embroidery thread: blanket stitch, standard items (eyes and poppers)</li> <li>Cutting out fabric using supplied patterns</li> <li>Make a felt soft toy which meets the brief</li> <li>Embellishing the toy to better meet the design brief</li> <li>Students present their investigation in their sketchbooks and use this to create new products</li> <li>Students respond to client feedback and develop their prototype as a result</li> </ul>			
Challenge	Developing a 3d product <b>Homework:</b> See previous	Make a game which will fit in a tin and can be used in a range of vehicles <b>Homework:</b> This should focus upon ensuring that the game is completed on schedule		<b>Level of bacteria knowledge communicated with the soft toy</b> <b>Homework:</b> Keyword investigation and online testing/quizzes relevant to textiles			
Assessment	Teacher verbal feedback (TVF) SA at the end of the project	<b>Self-assessment using the Header Sheet ACs</b> <b>Teacher assessment using the Header Sheet ACs</b>		<b>Self-assessment using the Header Sheet ACs</b> <b>Teacher assessment using the Header Sheet ACs</b>			

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## Justice Term

W/C	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19	HALF TERM	
Topic	Mobile Phone Stand or Bag		Acrylic Puzzle for Zero Gravity					
Core	<b>Practical investigation and design of small products</b> <ul style="list-style-type: none"> <li>Responding to a design brief</li> <li>Developing a mobile phone stand</li> <li>Introduction to flexibly</li> <li>Application of previous textile and/or woodworking skills from Y7-9</li> <li>Students introduced to the iterative design process and work independently to complete the project</li> <li>Students present their work in their sketchbooks</li> </ul>		<b>Introduction to working with polymers (acrylic) to make a puzzle and to develop a product for different environments (zero gravity)</b> <ul style="list-style-type: none"> <li>Responding to a design brief</li> <li>FPT of making an acrylic puzzle: using a pattern on resistant materials, sawing, filing and finishing acrylic</li> <li>Development of the puzzle to be used in 'zero gravity'</li> <li>Using the puzzle bag made for the baseline test in autumn 1</li> <li>Evaluation of the product</li> </ul>					
Challenge	<b>Branding of the product</b> <b>Homework:</b> Responding to teacher feedback to improve sketchbook presentation		Creative use of magnets to develop the puzzle <b>Homework 1:</b> Polymer keywords 1 <b>Homework 2:</b> Polymer tools keywords 1 <b>Homework 3:</b> Polymer processes keywords 1					
Assessment	<b>Self-assessment using the Header Sheet ACs</b> <b>Teacher assessment using the Header Sheet ACs</b>		<b>Self-assessment using the Header Sheet ACs</b> <b>Teacher assessment using the Header Sheet ACs</b>					

W/C	Week 20	Week 21	Week 22	Week 23	Week 24	Week 25	EASTER	
Topic	Light Box							
Core	<b>FPT to apply knowledge of woods, polymers and basic electronics to make a light feature for your bedroom</b> <ul style="list-style-type: none"> <li>Revisiting the dowel joint: batch production of box frame</li> <li>Revisit 2d Design and the laser cutter: Making the acrylic light panel, engraving, acrylic pens</li> <li>Semi-permanent fixtures: wood screws</li> <li>Wood finishes: oil, varnish, wax and paint</li> <li>Introduction to electronics: components of electricity, electrical components, simple circuits, soldering technique</li> <li>Making the lighting circuit</li> <li>Assembling and testing the light box</li> </ul>							
Challenge	<b>Producing a commercially viable product</b> <b>Homework 1:</b> Electronic keywords 1 <b>Homework 2:</b> Electronic tools keywords 1 <b>Homework 3:</b> Electronic processes keywords 1							
Assessment	<b>Self-assessment using the Header Sheet ACs</b> <b>Teacher assessment using the Header Sheet ACs</b>							

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## Courage Term

W/C	Week 26	Week 27	Week 28	Week 29	Week 30	Week 31	HALF TERM
<b>Topic</b>	<b>Cottage Industry – Batch Production</b>						
<b>Core</b>	<p style="text-align: center;"><b>Learning how to manufacture in quantity</b></p> <ul style="list-style-type: none"> <li>Introduction to QA and QC: jigs and patterns</li> <li>Production lines: candle sticks</li> <li>Revisiting batch production processes: pewter casting, 3d printer, laser cutter, press cutting</li> <li>Responding to a design brief: forming production teams to design and manufacture a batch of 10 identical items to be sold at the summer fair</li> <li>Marking the products made: costing, advertising, client, packaging</li> <li>Selling the products</li> </ul>						
<b>Challenge</b>	Leading the group to make a profitable range of products <span style="color: red;">Homework: Individual product development for selling at the summer fair</span>						
<b>Assessment</b>	Client feedback						

W/C	Week 32	Week 33	Week 34	Week 35	Week 36	Week 37	SUMMER
<b>Topic</b>	<b>None GCSE Students – Independent study</b> <span style="color: red;"><b>GCSE Option Students – DT Transition Project</b></span>						
<b>Core</b>	<p><b>Independent study</b> – focussing on an aspect from one of the 5 material groups and developing a deeper understanding on it in terms of designing with and manufacturing from for either a small product or skills demonstration e.g. wood joints, metal fabrication, rapid prototyping, machine sewing...</p> <p><span style="color: red;"><b>DT Transition Project</b></span> – Study of 16 designers and learning to design in the style of them. Developing a knowledge of the essential 60 DT subject specific terminology words/terms. Making a silver ring</p>						
<b>Challenge</b>	<b>None GCSE Students</b> – Demonstrating high level skill in the area of study <span style="color: red;"><b>GCSE Option Students</b></span> – Depth of understanding beyond knowledge or understanding i.e. application, evaluation and synthesis						
<b>Assessment</b>	None GCSE Students – TVF <span style="color: red;">GCSE Option Students – Testing</span>						