

# Year 7 Design Technology Long Term Plan

## Temperance Term

W/C	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	HALF TERM	
Area of Study	Introduction to DT	Baseline Test – Character Cube					Respond to Feedback and End of Term Test		
Core Learning	<b>Introduction to the workshop</b> <ul style="list-style-type: none"> <li>Bench expectations</li> <li>Where resources and equipment are stored</li> </ul> <b>Introduction to the sketchbook</b> <ul style="list-style-type: none"> <li>Labelling and ACCESS FM sheet</li> <li>First keywords</li> <li>Introduction page</li> </ul>	<b>Graphic and modelling skills to identify the level of understanding for the design process</b> <ul style="list-style-type: none"> <li>W2 Brief, mind-mapping and designing</li> <li>W3 Planning the layout and cutting out the net</li> <li>W4-5 Adding graphics to the net, assembling and developing the character cube</li> <li>W6 Evaluating the cube, maths skills and keyword definitions</li> <li>Guided introduction of all aspects of the design process from Brief to Evaluation, including paper/card prototypes</li> <li>Design booklet template used to record student outcomes</li> <li>Introduction/explanation of the 11 Assessment Criteria (AC) modelled on GCSE DT spec'</li> <li>Explanation and fundamental experiences of using the DT Sketchbook</li> </ul>					<ul style="list-style-type: none"> <li>Book Smart</li> <li>Read Teacher feedback</li> <li>Improve work</li> <li>Respond to teacher feedback (purple pen)</li> <li>End of term keyword test</li> </ul>		
Opportunities for Challenge	Complexity of collage <b>Homework:</b> Complete the intro page	By outcome as it is a baseline test <b>Homework:</b> Keyword spelling and definitions for papers and cards <b>Homework:</b> Manufacturing processes for papers and cards					Reassessed		
Assessment	Self- Assessment (SA)	SA			Teacher formative assessment (TA)		Teacher		

W/C	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	CHRISTMAS	
Area of Study	Pac Man and Ghost Wood Investigation		Introductory 3d Drawing Techniques and Baseline Intervention			Respond to Feedback and End of Term Test		
Core Learning	<ul style="list-style-type: none"> <li>W8 Learn names and categories for 3 woods (Larch, Plywood and MDF)</li> <li>W8 Cut, drill and sand either a Pac Man or ghost from one of 3 woods</li> <li>W9 Cut, drill and sand a different character (Pac Man or ghost) from a different wood</li> <li>W9 Present the wood investigation knowledge</li> </ul>		<b>3d drawing and colouring skills</b> <ul style="list-style-type: none"> <li>W10 Introduce isometric projection: cubes and cuboids</li> <li>W10 Identifying mistakes and correcting misconceptions</li> <li>W10 Cross-hatching, shading and toning skills, using graphite and pencil colour for flat objects</li> <li>W10 Texturing cubes: pine</li> <li>W11 Continuing isometric projection: cylinders, cones and combinations with cuboids</li> <li>W11 Identifying mistakes and correcting misconceptions</li> <li>W11 Cross-hatching, shading and toning skills, using graphite and pencil colour on curved objects</li> <li>W11 Drawing other objects – letters and buildings</li> <li>W12 Identifying isometric shapes in everyday objects and learning how to deconstruct objects into 'crates'</li> <li>W12 Exploded drawings: drawing the trinket box</li> <li>W12 Texture: MDF and Plywood: colour and texture the box drawing</li> </ul>			<ul style="list-style-type: none"> <li>Book Smart</li> <li>Read Teacher feedback</li> <li>Improve work</li> <li>Respond to teacher feedback (purple pen)</li> <li>End of term keyword test</li> </ul>		
Opportunities for Challenge	Work in all 3 woods <b>Homework:</b> Keyword spelling and definitions for woods <b>Homework:</b> Manufacturing processes for woods		Complexity of the drawing and toning techniques <b>Homework:</b> Time given to respond to teacher feedback <b>Homework:</b> Isometric drawing of your name or piece of furniture			Reassessed		
Assessment	Data Drop 1 based upon the Baseline and intervention		Teacher VF			Teacher		

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## Justice Term

W/C	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19	HALF TERM
Area of Study	Trinket Box Project (full design process)					Respond to Feedback and End of Term Test	
Core Learning	<b>Exploring the design process and introduction to core woodworking skills</b> <ul style="list-style-type: none"> <li>W14 Analysis of the brief: highlighting and explaining. Introduction to ACCESS FM and mind-mapping ideas</li> <li>W14 Writing a product specification</li> <li>W15 Introduction to Health and safety in the Workshop: responsibilities, protection of humans and equipment, safe woodworking (polymer) practices</li> <li>W16 Designing the shape of the trinket box: using isometric, colouring techniques and ACCESS FM to annotate ideas</li> <li>W17 Planning the order of production for the trinket box</li> <li>W18 Introduction to marking out tools used for wood: stress learning keywords, safety and precision</li> <li>W18-22 Cutting natural woods and manufacture boards using saws, drills and sanding (mechanical and by hand)</li> </ul>					<ul style="list-style-type: none"> <li>Book Smart</li> <li>Read Teacher feedback</li> <li>Improve work</li> <li>Respond to teacher feedback (purple pen)</li> <li>End of term keyword test</li> </ul>	
Opportunities for Challenge	Exemplars indicate High, Medium and Low <b>Homework 1: Woods keywords 1</b> <b>Homework 2: Woodworking tools keywords 1</b> <b>Homework 3: Woodworking processes keywords 1</b>					Reassessed	
Assessment	Self-assessment using the Header Sheet ACs Teacher assessment using the Header Sheet ACs			Teacher assessment using the Header Sheet ACs, end of project EBIs and LPs			

W/C	Week 20	Week 21	Week 22	Week 23	Week 24	Week 25	EASTER
Area of Study	Trinket Box Project (full design process)					Respond to Feedback and End of Term Test	
Core Learning	<b>Exploring the design process, developing the core woodworking skills and introduction to wood finishes</b> <ul style="list-style-type: none"> <li>W18-22 Cutting natural woods and manufacture boards using saws, drills and sanding (mechanical and by hand)</li> <li>W21 Joining woods using glue (PVA vs Hot glue)</li> <li>W22 Adding a finish to woods (Danish oil and water-based paints) and introduction to COSHH</li> <li>W23 Developing an opening device for the box and exploring the most suitable material for the lid (woods and/or polymers)</li> <li>W23 Exploring painting techniques for the lid</li> <li>W23 Finishing the trinket box</li> <li>W24 Costing and explanation of CAD and ICAM</li> <li>W24 Testing and evaluating the trinket box</li> </ul>					<ul style="list-style-type: none"> <li>Book Smart</li> <li>Read Teacher feedback</li> <li>Improve work</li> <li>Respond to teacher feedback (purple pen)</li> <li>End of term keyword test</li> </ul>	
Opportunities for Challenge	Complexity of box shape and lid mechanism <b>Homework 1: Woods keywords 2</b> <b>Homework 2: Woodworking tools keywords</b> <b>Homework 3: COSHH Poster</b>					Reassessed	
Assessment	Self-assessment using the Header Sheet ACs Teacher assessment using the Header Sheet ACs			Teacher assessment using the Header Sheet ACs, end of project EBIs and LPs		Teacher	

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## Courage Term

W/C	Week 26	Week 27	Week 28	Week 29	Week 30	Week 31	HALF TERM
Area of Study	<b>Metalwork 1 – Dog-Tag</b>		<b>Metalwork 2 – Desk Tidy</b>				
Core Learning	<b>Core metalworking skills taught through making a standard dog-tag</b> <ul style="list-style-type: none"> <li>W26 Handling metal: burrs and cutting</li> <li>W26 Precise metal marking processes: hand tools</li> <li>W26 Cutting aluminium: machines and hand tools</li> <li>W26 Shaping aluminium: filing processes and letter stamps</li> <li>W26 Finishing processes: draw filing, wet/dry, Brasso</li> <li>W27 Alternative shaping methods: Notcher and Coping Saw</li> <li>W27 2<sup>nd</sup> Dog-Tag of own design</li> </ul>		<b>Designing and making a non-ferrous product</b> <ul style="list-style-type: none"> <li>W28 Analysing a design brief and writing a product specification</li> <li>W28 Ferrous vs non-ferrous metals: visual and verbal explanation of aluminium, copper, brass and steel</li> <li>W29 Metal surface treatments: annealing, work hardening and anodising</li> <li>W29 Intermediate cutting techniques: fret saw, chain drilling and needle files</li> <li>W30 Demonstration of metal processes: bending, pop riveting, soft soldering</li> <li>W30 Modelling design ideas and embellishment through combining materials (woods and polymers) via laser cutter</li> <li>W30 Planning the order of manufacture for the desk tidy: Explanation of QA and QC templates, tolerances</li> <li>W31-32 Making the desk tidy</li> </ul>				
Opportunities for Challenge	This is an FPT so accuracy is the only challenge here <b>Homework 1: Metals keywords 1</b> <b>Homework 2: Metalworking tools keywords 1</b>		Combining two metals, complexity of the ornament, inclusion of standard items <b>Homework 1: Metalworking processes keywords 1</b> <b>Homework 2: Metalworking tools keywords 2</b> <b>Homework 3: Metalworking processes keywords 2</b>				
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 32	Week 33	Week 34	Week 35	Week 36	Week 37	SUMMER
Area of Study	<b>Metalwork 2 – Desk Tidy</b>		Design Challenge: Why has it never been invented yet?			Book Smart	
Core Learning	<b>Designing and making a non-ferrous product</b> <ul style="list-style-type: none"> <li>W31-32 Completing the desk tidy</li> <li>W33 Costing, testing and evaluating the desk tidy</li> <li>W33 Client evaluation of the ornament</li> </ul>		<b>Learning the core skills for responding to a GCSE Design Challenge</b> <ul style="list-style-type: none"> <li>W34 Exploring what a design challenge is: choosing a context, identifying a client and writing a brief</li> <li>W34 Explaining the Why has it never been invented yet?</li> <li>W34 Create teams for the design challenge and begin exploring the contexts</li> <li>W34 Creating a product Brief and specification</li> <li>W35 Researching similar products</li> <li>W35 Designing and developing a prototype</li> <li>W36 Pitching a product to an audience</li> </ul>			<ul style="list-style-type: none"> <li>Ending the year</li> </ul>	
Opportunities for Challenge	Combining two metals, complexity of the ornament, inclusion of standard items <b>Homework 1: Design like: Marcel Breuer, Gerrit Reitveld and Walter Gropius</b> <b>Homework 2: Design like: Templier, Tiffany and Mackintosh</b>		Complexity of the mechanism used in the card Use of graphic skills to produce a marketable product <b>Homework 1: Why has it never been invented yet? Research</b> <b>Homework 2: Why has it never been invented yet? Designing</b> <b>Homework 3: Why has it never been invented yet? Prototyping</b>			n/a	
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>			n/a	