Design Technology Long Term Plan Year 10 2019-20

Chichester Free School
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Temperance Term

W/C	2nd September	9th September	16th September	23rd September	30th September	7th October	14th October	21st October
Topic	**1. GCSE Woodwork: Introduction to the workshop**	**2. GCSE Woodwork: Wood joints**	**3. GCSE Woodwork: Investigating the picture frame context**	**4. GCSE Woodwork: Gathering Research**	**5. GCSE Woodwork: Needs of the client**	**6. GCSE Woodwork: Working drawings**	**7. GCSE Woodwork: Making the picture frame 1**	**8. GCSE Woodwork: Making the picture frame 2**
	Collect books Workshop safety, rules and responsibilities Butt wood joint made Self-assessing wood joints	Dowel Joint Halving Joint Adapting a wood joint	Wood Types keywords introduced Analyse the context Make a model of the picture frame	Wood keywords test Painting the picture frame model Introduction to Bauhaus Introduction to Art Deco Era inspired design	Wood Tools keywords introduced Homework presentation: Design era Planning interviews Presenting a client profile Developing a product for a client	Wood Tool keywords test Painting the picture Introduction to Techsoft 2d Design Introduction ot orthographic projection Creating a working drawing Planning the making	Wood Finishes keywords introduced Homework presentation: Famous designer Prepare materials for the picture frame Cut and mark out materials for the frame Start cutting the wood joints	Wood Finishes keywords test. Pairing the wood joints Gluing the wood joints Introduction to the router Adding the frame back Assembling the picture frame
Challenge	Wood joint is 8/10	Wood joints are 8/10	Detailed analysis Accurate and lifelike frame model	Detailed designs focussing upon the research	Client interview is used to develop a product	Working drawing and making plan show great detail	Frame materials are ready for cutting and are accurately marked out	Frame materials are ready for cutting and are accurately marked out
Assessment	Self-assessment	Self-assessment Teacher VF					1:1 feedback for woodworking	

W/C	HALF TERM	4th November	11th November	18th November	25th November	2nd December	9th December	CHRISTMAS
Topic		**9. GCSE Metalwork: Investigating the sundial context**	**10. GCSE Metalwork: Making the dog-tag**	**11. GCSE Metalwork: Making the sundial face**	**12. GCSE Metalwork: Making the dog-tag**	**13. GCSE Metalwork: Making the sundial face**	**14. GCSE Metalwork: Making the dog-tag**	
		Metal Types keywords introduced Analyse the context Make a model of the sundial	Metal types keywords test Investigation into metals Making the dog-tag Adding a finish to metal	Metal Tools keywords introduced Annealing copper Marking out the sundial face Cutting the sundial face Marking out the times	Metal Tools keywords test Precision marking tools Marking out the sundial aluminium base Cutting the aluminium base Using the sheet bending machine	Metal Finishes keywords introduced Introduction to permanent and non-permanent metal fixings Attaching the sundial face to the base	Metal Finishes keywords test Cutting threads Making the gnomon Making the sundial base	
Challenge		Detailed analysis Accurate and lifelike sundial model	Dog-tag is very accurate and well made	Sundial face is accurately made and well finished	Dog-tag is very accurate and well made	Range of fixings used with accuracy	Sundial has a pedestal base	
Assessment		Self-assessment Teacher VF				1:1 feedback for metalworking		

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Justice Term

W/C	6th January	13th January	20st January	27th January	3rd February	10th February	
Topic	**15. GCSE Textiles: Investigating the toolbelt context**	**16. GCSE Textiles: Gathering and using textile research**	**17. GCSE Textiles: Making the toolbelt; pockets**	**18. GCSE Textiles: Assembling the toolbelt**	**19. GCSE Textiles: Adding the buckle to the toolbelt**	**20. GCSE Textiles: Embellishing the toolbelt**	
	Textile Types keywords introduced Analyse the context Make a model of the toolbelt	Textile Types keywords test Learn how to thread the sewing machine Learn how to sew using the sewing machines Make patterns and cut out fabric Learn how to make a pocket	Textile tools keywords introduced Learn how to thread the sewing machine Learn how to sew using the sewing machines Make patterns and cut out fabric Learn how to make a pocket	Textile Tools keywords test Make the tool belt, belt Complete the pockets Attaching the pockets to the belt	Textile Processes keywords introduced Adding the buckle to the belt Finishing off the toolbelt Making button holes	Textile Processes keywords test Introduction to pewter casting Making a pewter cast emblem Introduction to the 3d printer Making a button	HALF TERM
Challenge	Detailed analysis Accurate and lifelike toolbelt model	Seam and hems have been sewn with accuracy and neatness	Seam and hems have been sewn with accuracy and neatness	Seam and hems have been sewn with accuracy and neatness	Toolbelt is completed to a good standard	Toolbelt is embellished effectively	
Assessment	Self-assessment Teacher VF				1:1 feedback for textile		
W/C	24th February	2nd March	9th March	16th March	23rd March	30th March	
Topic	**21. GCSE Polymers: Designing a desk tidy**	**22. GCSE Polymers: Designing a desk tidy**	**23. GCSE Polymers: Printing the Desk Tidy 1**	**24. GCSE Polymers: Printing the Desk Tidy 2**	**25. GCSE Polymers: Polymer CAM products 1**	**26. GCSE Polymers: Polymer CAM products 2**	
	Analyse the context Write a brief and specification Gather research Design a desk tidy Model a desk tidy	Demonstration of the LaserCutter Introduction to Techsoft 2d Design Drawing the desk tidy net onto 2d Design	Setting up the laserCutter Begin cutting out the desk tidy nets Acrylic key fob; working polymer skills	Heat bending machine Gluing acrylic Continue LaserCutter rota	Mind map possible poly products Explore what could be made on the LaserCutter and 3d Printer Design a product using CAD to CAM	Printing the polymer product	EASTER
Challenge	Desk tidy creatively uses the A4 size sheet material	Accuracy and precision is evident throughout the net	Accuracy and precision is evident throughout the net	Desk tidy has been printed. Key fob is finished well	Independently creates a polymer product using CAD	Independently makes a polymer product using CAM	
Assessment	Self-assessment Teacher VF						

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Courage Term

W/C	20th April	27th April	4th May	11th May	18th May	HALF TERM
Topic	**27. GCSE Wood Industrial Practices: Scales of Production**	**28. GCSE Wood Industrial Practices: What is a jig?**	**29. GCSE Wood Industrial Practices: Improving jigs**	**30. GCSE Wood Industrial Practices: Manufacturing a candle stick 1**	**31. GCSE Wood Industrial Practices: Manufacturing a candle stick 2**	
	Scales of production activity Introduction to the bird box challenge	Demonstrate 3 jigs Explain the birdbox construction Demonstrate how to batch produce the birdbox Students begin batch production	Review the batch production: WWW Explore how to improve the production Modify production method Complete making the 6 birdboxes	Explain the candle stick challenge Teams: 1. design candle stick 2. Plan production 3. Make jigs	Teams: 1. Review making process 2. Make 6 candle sticks 3. Review the making	
Challenge	Evidence of being able to explain the 5 scales of production	Student can use jigs with precision	Has identified and applied at least one improvement to the production method	Lead teams in the design of an effective production line	Evidence of assuring quality of the candle sticks	
Assessment	Self-assessment Teacher VF			Year 10 Mock Exams		

W/C	1st June	8h June	15th June	22nd June	29th June	6th July
Topic	**Work Experience**	**33. GCSE Metal Industrial Practices: Tolerances 1**	**34. GCSE Metal Industrial Practices: Tolerances 2**	**35. GCSE NEA: Understanding the context**	**36. GCSE NEA: Gathering research**	**37. GCSE NEA: Possible Ideas**
		Explain what is meant by 'Precision Engineering' Introduction to: tolerances, QA and QC Making a go/not-go gauge	Creating a drawing with tolerances Making a simple product within tolerance	Explain the NEA process Analyse the contexts Choose a context Research the context Create a design folder	Create a research plan Understanding the purpose of research Client profile Interviewing the client	Introduction to the Summer task Designing a solution Modelling a solution
Challenge		Can work out and apply tolerances		Will have a broad and strong understanding of what the context means	Interview questions are insightful and supportive of solving the context	Model is well made and lifelike
Assessment		1:1 post exam feedback				