

Subject Long Term Plan Year 11 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	NEA Coursework – Understanding the context/problem and creating a possible solution Mock 1 Preparation				NEA Coursework – Generating the first Prototype Mock 1 Intervention				
Core	Section 1: NEA Pages 1, 5, 6 and 7 <ul style="list-style-type: none"> Explain the NEA Blue Book and students create a design folder (paper but preferably electronic) 1:1 short student meetings to check that each student's NEA Context and Brief choices are confirmed Page 1 Planning: Explore the Blue Book to construct the layout and content for page 1: Context; problem; client brief... Page 1 Presenting: students work independently, Controlled Assessment (CA), and present draft 1 of page 1 Continue Planning and Presenting routine for Page 5; Brief, Page 6; Specification and Page 7; Design Ideas One Mock 1 <ul style="list-style-type: none"> Exam list issued to students and review of the exam paper style of presentation Revisit the 7 step exam approach and complete one practice medium length answer as a walking talking exam Revisit generating revision materials and practice one as a class: clarify knowledge, revision card generated and practice questions created Use one lesson per week and homework time for students to prepare for the exam Mock 1 completed by end of September Mock 1 marked, gap analysis completed and 1:1 student meetings to give results and create individual intervention plans 				Section 1 cont'd: NEA pages 11, 16 and 19 <ul style="list-style-type: none"> Revisit the Client Brief to check that each student is designing for a person rather than themselves 1:1 short student meetings to confirm standard of NEA, for their targets, are achievable Explore NEA requirements for Prototyping: Analyse, with the class, the relevant NEA AC; Refer to the NEA Blue Book; revisit the Y10 Picture frame project (cardboard frame model/prototype) Page 11: Recording prototype one: students use sketches and modelling methods (electronic or physical) to create a prototype Page 16: Working drawing draft one or proposal one, for a possible final prototype; orthographic or 3d; include sizes Page 19: client evaluation and testing of prototype one Mock 1 Intervention <ul style="list-style-type: none"> Students continue with their individual intervention plans Hold a 1:1 conference to gauge progress being made: use the gap analysis to focus discussions 				
Challenge	Each NEA design page is within 1 grade of target Homework: Mock 1 preparation: 1. Students use the exam question list to identify what areas that they need to revise. 2. Add a weekly quiz to test students on section A, B and C of Mock 1 NEA: Attend after school catch-up workshops				Each NEA design page is within 1 grade of target Homework: NEA Focus: 1 students responding to NEA feedback; TA of work 2. NEA example page analysis and assessment 3. Attend after school catch-up workshops				
Assessment	SA and TA				SA and TA				

W/C	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	CHRISTMAS	
Topic	NEA Coursework – Generating a second prototype Mock 2 Preparation				NEA suspended Mock 2			
Core	Section 2: NEA Pages 2, 3, 8 and 12 <ul style="list-style-type: none"> Explore NEA requirements for: Client interview; Similar product research; Work of others (designing like the essential 16 designers) Analyse, with the class, the relevant NEA AC; Refer to the NEA Blue Book; revisit the Y10 Picture frame project (cardboard frame model/prototype) 1:1 short student meetings to review client feedback regarding prototype ONE Page 2 Planning: Explore the Blue Book to construct the layout and content for page 2: Client interview; graphical data methods; analysis of results Page 2 Client interview : students work independently, Controlled Assessment (CA), and present page 2 Continue Planning and Presenting routine for Page 3; Similar Product research, Page 8; Design Ideas 2 and Page 12; Generating Prototype TWO Mock 2 <ul style="list-style-type: none"> Exam list issued to students and review of the exam paper style of presentation Revisit the 7 step exam approach and complete one practice medium length answer as a walking talking exam Revisit generating revision materials and practice one as a class: clarify knowledge, revision card generated and practice questions created Use one lesson per week and homework time for students to prepare for the exam 				Revising for the exam Practice papers <ul style="list-style-type: none"> Mock 2 completed Mock 2 marked, gap analysis completed and 1:1 student meetings to give results and create individual intervention plans 			
Challenge	Each NEA design page is within 1 grade off target Homework: Mock 2 preparation: 1. Students use the exam question list to identify what areas that they need to revise. 2. Add a weekly quiz to test students on section A, B and C of Mock 1 NEA: Attend after school catch-up workshops				Hit target grade Homework: time given for revision			
Assessment	SA and Teacher Formative assessment Online self-assessment				TA			

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Justice Term

W/C	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19	HALF TERM
Topic	NEA Coursework Mock 3 Preparation				NEA: Making the final Prototype and Testing and Evaluating the Final Prototype		
Core	<p style="text-align: center;">Section 3 of the NEA Coursework (pages 4, 9, 10, 13-18) and Prototype THREE and FOUR</p> <ul style="list-style-type: none"> 1:1 short student meetings to review client feedback regarding NEA Page 4 Impact of Materials: investigation into suitable materials and standard components for the final prototype, students work independently, Controlled Assessment (CA), and present page 2 Continue Planning and Presenting routine for Page 9; Designing 3, Page 10; Design Ideas 4, Pages 13-18; Prototype THREE and FOUR <p style="text-align: center;">Mock 3 Preparation</p> <ul style="list-style-type: none"> Exam list issued to students and review of the exam paper style of presentation Revisit the 7 step exam approach and complete one practice medium length answer as a walking talking exam Revisit generating revision materials and practice one as a class: clarify knowledge, revision card generated and practice questions created Use one lesson per week and homework time for students to prepare for the exam 				<p style="text-align: center;">Section 4 of the NEA Coursework (pages 19+20) and Prototype FIVE</p> <ul style="list-style-type: none"> 1:1 short student meetings to review client feedback regarding NEA Page 19: Designing a test procedure for the prototype which includes the specification and client views Page 20: Final evaluation created All work submitted for formative assessment 		
Challenge	Each page within 1 grade off target				Each page within 1 grade of target		
Assessment	SA and Teacher Formative assessment Online self-assessment				SA and Teacher Formative assessment Online self-assessment		

W/C	Week 20	Week 21	Week 22	Week 23	Week 24	Week 25	EASTER
Topic	NEA Finale: Closing the deal and hitting the mark		Metalwork	Textiles	Polymers and Papers/cards	Mechanisms and Electronics	
Core	<p style="text-align: center;">Students use the teacher feedback to raise the standard of their NEAs in line with target grades</p> <ul style="list-style-type: none"> 1:1 feedback on NEA Responding to feedback <p style="text-align: center;">Mock 3 Preparation</p> <ul style="list-style-type: none"> Exam list issued to students and review of the exam paper style of presentation Revisit the 7 step exam approach and complete one practice medium length answer as a walking talking exam Revisit generating revision materials and practice one as a class: clarify knowledge, revision card generated and practice questions created Use one lesson per week and homework time for students to prepare for the exam 		<p style="text-align: center;">Revision through Focussed Practical Tasks: Metalwork process</p> <ul style="list-style-type: none"> Wastage, redistribution and addition processes Metalwork fabrication techniques: marking with accuracy, drilling, cutting, finishing and forming Characteristics of different metals: ferrous and non-ferrous, alloy, modern metals and smart metals, source to stock form Fixtures, permanent and non-permanent: rivets, machine screws, cutting threads Metalworking hand tools: marking tools, hand cutting and forming, finishing tools Metalworking machine tools: notcher, pop-riveting, drill 	<p style="text-align: center;">Revision through Focussed Practical Tasks: Textile process</p> <ul style="list-style-type: none"> Wastage, redistribution and addition processes Textile fabrication techniques: marking with accuracy, cutting, sewing (machine and hand), finishing Investigation into different fabrics: natural vs synthetic, modern textiles, smart textiles, source to stock form, fire retardant Standard textile components: buttons, zips, rivets and buckles Textile hand tools: marking tools, hand cutting, sewing different stitches, finishing methods Textile machine tools: sewing machine, over locker, button and zip tools, leather punches, riveting tool 	<p style="text-align: center;">Revision through Focussed Practical Tasks:</p> <p style="text-align: center;">FPT - Introduction to the lasercutter</p> <p style="text-align: center;">FPT - Introduction to 3d printing</p> <p style="text-align: center;">FPT - Introduction to Card press</p> <ul style="list-style-type: none"> Using Techsoft 2d Design with accuracy: drawing callipers How to use the LaserCutter: set up, upload, safety, cutting out the callipers Using DesignSpark Mechanical: creating components for the calliper How to use the 3d Printer: set up, upload, printing and safety, creating components for the calliper Investigation into the card press machine: standard press cutters and safety Investigation of paper/card printing processes and product manufacture: Offset Lithography, inkjet printing, embossing, scoring, perforating Using the press and developing a net to hold small products 	<p style="text-align: center;">Revision through Focussed Practical Tasks: Mechanism and Electronic processes</p> <ul style="list-style-type: none"> Types of motion Types of mechanisms Application of mechanisms Making simple mechanical devices Components of electricity Types of electronic components Application of electronics: programmable microcontrollers Making simple electronic circuits using prototyping methods: breadboard, light circuit, sensor circuit Soldering techniques 	
Challenge	Hitting your target grade		Achieving target Grade in test papers	Achieving target Grade in test papers	Achieving target Grade in test papers	Achieving target Grade in test papers	
Assessment	TA		Self-assessment using the Header Sheet ACs Teacher assessment using the Header Sheet ACs Online quizzes and walking-talking exams	Self-assessment using the Header Sheet ACs Teacher assessment using the Header Sheet ACs Online quizzes and walking-talking exams	Self-assessment using the Header Sheet ACs Teacher assessment using the Header Sheet ACs Online quizzes and walking-talking exams	Self-assessment using the Header Sheet ACs Teacher assessment using the Header Sheet ACs Online quizzes and walking-talking exams	



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Courage Term

W/C	Week 26	Week 27	Week 28	Week 29	Week 30	Week 31	HALF TERM	
Topic	Mock 3 Feedback and Gap Intervention		Revising for the summer exam					
Core	1:1 feedback on the exam Creating bespoke revision packs		Walking talking test papers Bespoke intervention Practical tasks for 5 material groups to revisit manufacturing techniques					
Challenge	n/a		Achieve target grade					
Assessment	n/a		SA and TA					

W/C	Week 32	Week 33	Week 34	Week 35	Week 36	Week 37	SUMMER
Topic	Year 11 Summer Exams						
Core							
Challenge							
Assessment							