



KS3 Technology Yr 7-9 will rotate every 9 weeks

Design & Technology

Year	Cycle 1 -12 Weeks (10 weeks teaching, 1 week assessment, 1 impact week)	Cycle 2 -12 Weeks (10 weeks teaching, 1 week assessment, 1 impact week)	Cycle 3 -12 Weeks (10 weeks teaching, 1 week assessment, 1 impact week)
7	<p>Introduction to Design and Technology as a subject in line with new GCSE specification that treats the various disciplines of DT as a single subject (Product Design, Textiles, Graphics) with a more holistic approach. Class discussion Q and A session.</p> <p>Do Now and HW coverage:</p> <ul style="list-style-type: none">• Technical drawing techniques: perspective drawing, isometric drawing• Mind mapping• Design Inspiration• The generation of design ideas• The development of design ideas• CAD/CAM• Annotation• Realising design ideas• Mechanisms• Paper engineering <p>Content for the rotation: To understand how to use technical drawing techniques to accurately convey design ideas</p>	<p>Introduction to Design and Technology as a subject in line with new GCSE specification that treats the various disciplines of DT as a single subject (Product Design, Textiles, Graphics) with a more holistic approach. Class discussion Q and A session.</p> <p>Do Now and HW coverage:</p> <ul style="list-style-type: none">• Technical drawing techniques: perspective drawing, isometric drawing• Mind mapping• Design Inspiration• The generation of design ideas• The development of design ideas• CAD/CAM• Annotation• Realising design ideas• Mechanisms• Paper engineering <p>Content for the rotation: To understand how to use technical drawing techniques to accurately convey design ideas</p>	<p>Introduction to Design and Technology as a subject in line with new GCSE specification that treats the various disciplines of DT as a single subject (Product Design, Textiles, Graphics) with a more holistic approach. Class discussion Q and A session.</p> <p>Do Now and HW coverage:</p> <ul style="list-style-type: none">• Technical drawing techniques: perspective drawing, isometric drawing• Mind mapping• Design Inspiration• The generation of design ideas• The development of design ideas• CAD/CAM• Annotation• Realising design ideas• Mechanisms• Paper engineering <p>Content for the rotation: To understand how to use technical drawing techniques to accurately convey design ideas</p>

	<ul style="list-style-type: none"> • To learn how to use a mind map to effectively explore a design context or target market group • To learn how to avoid design fixation when designing and to be able to generate meaningful, innovative ideas that fulfil a purpose • To learn how to develop design ideas using sketching, modelling and prototyping and digitally • To understand the meaning of and use of CAD/CAM in school and the wider world • To learn how to meaningfully annotate design ideas • To learn the importance of Sustainable Design • Within the design/make project to learn how to work accurately and safely using the correct equipment • To learn about how mechanisms, work – leading to a paper engineering mini-project <p>Extension: More sophisticated mechanisms and kinetic paper engineering storybook rather than a series of cards</p>	<ul style="list-style-type: none"> • To learn how to use a mind map to effectively explore a design context or target market group • To learn how to avoid design fixation when designing and to be able to generate meaningful, innovative ideas that fulfil a purpose • To learn how to develop design ideas using sketching, modelling and prototyping and digitally • To understand the meaning of and use of CAD/CAM in school and the wider world • To learn how to meaningfully annotate design ideas • To learn the importance of Sustainable Design • Within the design/make project to learn how to work accurately and safely using the correct equipment • To learn about how mechanisms, work – leading to a paper engineering mini-project <p>Extension: More sophisticated mechanisms and kinetic paper engineering storybook rather than a series of cards</p>	<ul style="list-style-type: none"> • To learn how to use a mind map to effectively explore a design context or target market group • To learn how to avoid design fixation when designing and to be able to generate meaningful, innovative ideas that fulfil a purpose • To learn how to develop design ideas using sketching, modelling and prototyping and digitally • To understand the meaning of and use of CAD/CAM in school and the wider world • To learn how to meaningfully annotate design ideas • To learn the importance of Sustainable Design • Within the design/make project to learn how to work accurately and safely using the correct equipment • To learn about how mechanisms, work – leading to a paper engineering mini-project <p>Extension: More sophisticated mechanisms and kinetic paper engineering storybook rather than a series of cards</p>
	<p>Students Design and Technology knowledge extended through Do Now's linked to homework which is interleaved with classwork</p> <p>Do Now and Homework coverage: Technical drawing exercises</p>	<p>Students Design and Technology knowledge extended through Do Now's linked to homework which is interleaved with classwork</p> <p>Do Now and Homework coverage: Technical drawing exercises</p>	<p>Students Design and Technology knowledge extended through Do Now's linked to homework which is interleaved with classwork</p> <p>Do Now and Homework coverage: Technical drawing exercises</p>

	<p>Creating and using a meaningful mood-board Fonts and typography types research encouraging use of Fontspace website Identification of a Target Market Group The difference between TMG and a client USPs – unique selling points Upcycling, The 6Rs Cams, followers V-fold, slide, layer, mouth mechanisms</p> <p>Content on the rotation:</p> <ul style="list-style-type: none"> • Technical Drawing: Teach students how to produce accurate single and 2-point perspective drawings using correct equipment and isometric drawing using an isometric grid • Mind Mapping as a Research and learning tool: How to create a visually appealing and useful mind map using the rules • The iterative design process – teach students the design process that needs to be evidenced in the new GCSE NEA specification • CAD/CAM: • At present taught in 'theory' and 'by hand' until the arrival of the laser cutter • Sustainability in design: the 6Rs, recycling, recyclable materials, biodegradable materials, material sources • How basic mechanisms work 	<p>Creating and using a meaningful mood-board Fonts and typography types research encouraging use of Fontspace website Identification of a Target Market Group The difference between TMG and a client USPs – unique selling points Upcycling, The 6Rs Cams, followers V-fold, slide, layer, mouth mechanisms</p> <p>Content on the rotation:</p> <ul style="list-style-type: none"> • Technical Drawing: Teach students how to produce accurate single and 2-point perspective drawings using correct equipment and isometric drawing using an isometric grid • Mind Mapping as a Research and learning tool: How to create a visually appealing and useful mind map using the rules • The iterative design process – teach students the design process that needs to be evidenced in the new GCSE NEA specification • CAD/CAM: • At present taught in 'theory' and 'by hand' until the arrival of the laser cutter • Sustainability in design: the 6Rs, recycling, recyclable materials, biodegradable materials, material sources • How basic mechanisms work 	<p>Creating and using a meaningful mood-board Fonts and typography types research encouraging use of Fontspace website Identification of a Target Market Group The difference between TMG and a client USPs – unique selling points Upcycling, The 6Rs Cams, followers V-fold, slide, layer, mouth mechanisms</p> <p>Content on the rotation:</p> <ul style="list-style-type: none"> • Technical Drawing: Teach students how to produce accurate single and 2-point perspective drawings using correct equipment and isometric drawing using an isometric grid • Mind Mapping as a Research and learning tool: How to create a visually appealing and useful mind map using the rules • The iterative design process – teach students the design process that needs to be evidenced in the new GCSE NEA specification • CAD/CAM: • At present taught in 'theory' and 'by hand' until the arrival of the laser cutter • Sustainability in design: the 6Rs, recycling, recyclable materials, biodegradable materials, material sources • How basic mechanisms work • Through a series of FPTs and a mini design and make task students
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	<ul style="list-style-type: none"> Through a series of FPTs and a mini design and make task students create a range of pop-up or kinetic card mechanisms <p>Extension:</p> <ul style="list-style-type: none"> Students to cover GCSE style questions in booklet 	<ul style="list-style-type: none"> Through a series of FPTs and a mini design and make task students create a range of pop-up or kinetic card mechanisms <p>Extension:</p> <ul style="list-style-type: none"> Students to cover GCSE style questions in booklet 	<p>create a range of pop-up or kinetic card mechanisms</p> <p>Extension:</p> <ul style="list-style-type: none"> Students to cover GCSE style questions in booklet
8	TO BE DONE		
9	TO BE DONE		
10	<p>TO BE DONE – UNLESS ALTERNATIVE CURRICULUM MAP FORMAT CAN BE USED SO I DON'T HAVE TO RE-INVENT THE WHEEL 😊</p> <p>Do Now links: All based on flipped learning homework</p> <p>Homework is flipped learning where students make Cornell theory Notes about the topic they are about to cover in class</p> <p>Topic 1 – Data Representation</p> <ul style="list-style-type: none"> Binary Binary arithmetic Text representation Image representation Sound representation <p>Topic 2 - System Security</p> <ul style="list-style-type: none"> Phishing Pharming Blagging Shouldering Prevention of threats Encryption Anti-malware User access levels Updates MAC address filtering 	<ul style="list-style-type: none"> 	

	<ul style="list-style-type: none"> • Passwords • Biometrics • Email confirmation • CAPTCHA 		
11	<p>Do Now links: All based on flipped learning homework</p> <p>Homework is flipped learning where students make Cornell theory Notes about the topic they are about to cover in class</p> <p>Topic 1 - Programming languages Structured programming Machine code High level language Assembly language Translators Assembler / translator / interpreter</p> <p>Topic 2 - Networks</p> <ul style="list-style-type: none"> • PAN/LAN/WAN • Network Protocols • Wired v wireless • BUS and STAR topology <p>Topic 3 – Logic AND OR NOT Truth Tables Creating logic diagrams</p>		

