

The Nottingham Emmanuel School – DT Curriculum Map (2019-2020)



	Rotation 1	Rotation 2	Rotation 3	Rotation 4
Year 7	<p>Textiles</p> <p>Importance of textiles in society Natural material types and sources Basic tools and equipment in textiles Tie dye/ Hand embroidery skills How to plan and prepare when making Measuring and marking out What is appliqué Different hand embroidery techniques</p>	<p>Plastics</p> <p>Basic plastic knowledge– thermosetting/ thermoplastics Basic tools and equipment How to plan and prepare when making What is ergonomics Different types of CAD/CAM software packages- Google sketch up/ 3D printer Design drawing using CAD software</p>	<p>Woods</p> <p>Health and Safety Types of woods Inclusive design Target market Wood joints Tools and equipment Isometric drawing CAD/CAM- Laser cutter Surface finishes Packaging and processes</p>	<p>Food</p> <p>Eatwell guide Designing healthy meals Healthy diet Hygiene Adapting recipes Government guidelines Energy balance Seasonality locally produced</p>
Year 8	<p>Textiles</p> <p>Smart materials Synthetic material types and sources 3D designing—photoshop 2D designing How to use a sewing machine How to hem , tack and sew fabric accurately How to insert a zip Following a production plan</p>	<p>Electronics</p> <p>Health and safety What is how soldering How to solder correctly. Tools and equipment Electronic components and circuits</p>	<p>Product Design</p> <p>Design brief and specification Iconic design Iterative design through 2D/3D software Importance of modelling</p>	<p>Food</p> <p>Target market Nutritional needs Cultural themes Function of ingredients Production plan Adapting recipes Danger zone/ bacterial growth/High risk foods Presentation technique</p>

Year 9 Textiles	<p>A01 Students will be introduced to a range of diverse textile designers. Students will understand the stylistic qualities of artwork and be able to apply them to their own work.</p> <p>A02 Developing practical skills through sampling with a range of mixed media</p>	<p>A01 Students will be introduced to a range of diverse textile designers. Students will understand the stylistic qualities of artwork and be able to apply them to their own work.</p> <p>A02 Developing practical skills through sampling with a range of mixed media</p>	<p>A01 Students will be introduced to a range of diverse textile designers. Students will understand the stylistic qualities of artwork and be able to apply them to their own work.</p> <p>A02 Developing practical skills through sampling with a range of mixed media</p>	<p>A01 Students will be introduced to a range of diverse textile designers. Students will understand the stylistic qualities of artwork and be able to apply them to their own work.</p> <p>A02 Developing practical skills through sampling with a range of mixed media</p>	<p>A01 Project brief given– Insects Mind mapping ideas/Students will be introduced to a range of diverse textile designers.</p> <p>A02 Further Developing practical skills through sampling with a range of mixed media. incorporating stylistic qualities of artists.</p>	<p>A03 Design ideas– incorporating stylistic qualities of chosen artists</p> <p>A04 Students will create a personal and meaningful response. Students will have the independent skills to develop an idea (5 hour practical exam)</p>
------------------------	--	--	--	--	--	--

Year 9 Food	<p>Accommodation project</p> <p>Structure of Hospitality and Catering industry Job requirements working conditions Economy Operation of front of house weighing , measuring, shaping, whisking, rubbing-in, Presentation techniques Food safety</p>	<p>Christmas Party Project</p> <p>Customer needs and requirements Health and Safety legislation Hazards, risks and control measures Weighing , measuring, shaping, whisking, rubbing-in, Presentation techniques Food safety</p>	<p>Public House Project</p> <p>Structure of public house sector Different menus working conditions Dress code Personal safety responsibilities Health and Safety legislation Nutritional needs of children techniques in preparation and cooking of food Food safety</p>	<p>Afternoon Tea Project</p> <p>Propose a hospitality and catering provision Understanding the environment in which hospitality and catering providers operate How hospitality and catering providers can have success Menu planning Cook complex dishes techniques in preparation and cooking of food Food safety</p>	<p>Afternoon Tea Project</p> <p>Propose a hospitality and catering provision Understanding the environment in which hospitality and catering providers operate How hospitality and catering providers can have success Menu planning Cook complex dishes techniques in preparation and cooking of food Food safety</p>	<p>Afternoon Tea 2 Project</p> <p>Propose a hospitality and catering provision Understanding the environment in which hospitality and catering providers operate How hospitality and catering providers can have success Menu planning Cook complex dishes techniques in preparation and cooking of food Food safety</p>
YEAR 9 Product Design	<p>Designing and Making principles</p> <p>Developing drawing skills One and two point perspective Shading rendering, crating Complex wood joints comb/finger joints/half lap joints</p>	<p>Core knowledge:</p> <p>Materials and their working properties: Introduction to material properties Know the primary sources of materials for producing papers and boards Timbers, metals, polymers, textiles.</p> <p>Skills Project: Box project: selection of materials and components</p>	<p>Specialist technical principles</p> <p>Timber based materials Selection of materials or components Forces and stresses Ecological and social footprints Sources and origins,</p> <p>Skills Project: Pewter project: specialist tools and equipment</p> <p>Design skills: communication of design ideas (2D/3D)</p>	<p>Skills Project:</p> <p>Pewter project: specialist tools and equipment Pewter project: specialist techniques and processes Pewter casting project/ Mini NEA: design strategies/ iterative design</p>	<p>Core knowledge:</p> <p>Using and working with materials Stock forms, types and sizes Scales of production Specialist techniques and processes Surface treatments and finishes.</p> <p>Skills Project: Mini NEA: investigation, primary and secondary data-Ettore Sotsass slot together chair Application of Maths and Science in D&T context</p>	<p>Specialist technical principles</p> <p>Mini NEA: investigation, Primary and secondary data Ettore Sotsass slot together chair Mini NEA: prototype development Application of Maths and Science in D&T context</p>

Year 9 Construction	<p>Unit 1 Know Health and Safety legal requirements for working in the construction industry:</p> <p>Summaries the responsibilities of Health and Safety Legislation Identify Safety signs used by the construction industry Identify safety signs used in the construction industries Identify fire extinguishers used in different situations Describe the role of the HSE Identify hazards to Health and Safety in different situations</p>	<p>Unit 1 Know Health and Safety legal requirements for working in the construction industry:</p> <p>Describing the potential effects of hazards in different situations Explain the risks of harm in two different situations Explain existing Health and Safety control measures in different situations Recommend Health and Safety control measures in different situations Identify how risks to security in construction are minimised in different situations Describe measures used in construction to minimise the risk to security</p>	<p>Unit 2 Practical Construction Skills development Tiling / Bricklaying:</p> <p>Read diagrams and symbols Plan for construction tasks Identify and calculate resources Set success criteria Prepare for construction tasks Apply techniques to complete construction tasks Apply Health and Safety techniques to complete construction tasks Evaluate construction tasks</p> <p>Unit 1 Health and Safety and Security in Construction Revision</p>	<p>Unit 2 Practical Construction Skills development Wiring:</p> <p>Read diagrams and symbols Plan for construction tasks Identify and calculate resources Set success criteria Prepare for construction tasks</p> <p>Apply techniques to complete construction tasks Apply Health and Safety techniques to complete construction tasks Evaluate construction tasks</p> <p>Unit 1 Health and Safety and Security in Construction Revision:</p>	<p>Unit 2 Practical Construction Skills development Roofing:</p> <p>Read diagrams and symbols Plan for construction tasks Identify and calculate resources Set success criteria Prepare for construction tasks Apply techniques to complete construction tasks Apply Health and Safety techniques to complete construction tasks Evaluate construction tasks</p> <p>Unit 1 Health and Safety and Security in Construction Revision:</p> <p>End of Unit 1 Exam June 5th</p>	<p>Unit 2 Practical Construction Skills development Painting:</p> <p>Read diagrams and symbols Plan for construction tasks Identify and calculate resources Set success criteria Prepare for construction tasks Apply techniques to complete construction tasks Apply Health and Safety techniques to complete construction tasks Evaluate construction tasks</p>
YEAR 10 Textiles	<p>A01/A02 Students will explore the ideas of 'Structures'.</p>	<p>A01/A02 Students will explore the ideas of 'Structures'.</p>	<p>A03 Students will create design ideas by combining the work of their chosen artists from their previous work.</p> <p>A04 Students will work in small teams to create a personal and meaningful response. Students will have the independent skills to develop an idea</p>	<p>Component 1 Personal project 60% of GCSE</p> <p>A01 Students will choose a starting point and respond to it through mind mapping ideas and creating mood boards. They will research artists showing how the work of others linked to their ideas and theme.</p> <p>Students will gather visual imagery to further develop their ideas.</p>	<p>A02/A03 Students will explore their theme through line drawing/mark making and other various media.</p> <p>A02/A01 Students will further develop their ideas through researching in depth an artist that links their theme. Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media. Students will evaluate and improve as work progresses. (5 hour mock exam)</p>	<p>A02/A01 Students will further develop their ideas through researching in depth a second and third artist that links their theme. Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media. Students will evaluate and improve as work progresses.</p>

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">YEAR 10 Food</p>	<p>Center Parcs project</p> <p>Working conditions Explain factors affecting success of hospitality and catering businesses: economy, technology environment, lifestyle, media, political Meet customer requirements: leisure, business, local residents Health and safety legislation Environmental health officer</p>	<p>Center Parcs project</p> <p>Working conditions Explain factors affecting success of hospitality and catering businesses: economy, technology environment, lifestyle, media, political Meet customer requirements: leisure, business, local residents Health and safety legislation Environmental health officer</p>	<p>Mock NEA</p> <p>Completing a mock piece of NEA with a brief to meet the assessment criteria Focus on high skills and presentation in cooking for the practical exam</p>	<p>Mock NEA</p> <p>Completing a mock piece of NEA with a brief to meet the assessment criteria Focus on high skills and presentation in cooking for the practical exam</p>	<p>Mock NEA</p> <p>Completing a mock piece of NEA with a brief to meet the assessment criteria Focus on high skills and presentation in cooking for the practical exam</p>	<p>Mock NEA</p> <p>Completing a mock piece of NEA with a brief to meet the assessment criteria Focus on high skills and presentation in cooking for the practical exam</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">YEAR 10 Construction</p>	<p>Tiling course work practical assessment and write up</p> <p>Reading diagrams and symbols Planning for construction tasks Identifying and calculating resources Setting success criteria Preparing for construction tasks Applying techniques to complete construction tasks Applying Health and Safety techniques to complete construction tasks Evaluation construction tasks</p>	<p>Bricklaying coursework practical assessment and write up</p> <p>Reading diagrams and symbols Planning for construction tasks Identifying and calculating resources Setting success criteria Preparing for construction tasks Applying techniques to complete construction tasks Applying Health and Safety techniques to complete construction tasks Evaluation construction tasks</p>	<p>Wiring/painting and roofing coursework practical assessment and write up</p> <p>Reading diagrams and symbols Planning for construction tasks Identifying and calculating resources Setting success criteria Preparing for construction tasks Applying techniques to complete construction tasks Applying Health and Safety techniques to complete construction tasks Evaluation construction tasks</p>	<p>Unit 3 : Developing knowledge of job roles involved in realising construction and built environment projects:</p> <p>Describing activities of those involved in construction projects Describe responsibilities of those involved in construction projects Describe outputs of those involved in realising construction projects Describe processes used in built environment development projects Calculate resources to meet requirements for built environment development projects Assess potential effect of factors on project success Interpret sources of information</p>	<p>Unit 3</p> <p>Sequence processes to be followed Apportion time to processes Use project planning tools Set project tolerances</p> <p>Exam preparation and revision</p> <p>End of Unit 3 Exam 5th June</p>	

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Year 10 Product Design</p>	<p>Designing and Making Principles:</p> <p>Investigating, Primary and Secondary Data Environmental, social and economical challenge The work of others Design strategies Prototype development</p> <p>Skills Project: Ettore Sotsass Slot together chair project</p>	<p>Designing and Making Principles:</p> <p>Selection of materials and components Tolerances Material management Specialist tools and equipment Specialist techniques and processes</p> <p>Skills Project: Ettore Sotsass Slot together chair project</p>	<p>Specialist Technical Principles:</p> <p>Selection of materials or components Forces and stresses Ecological and social footprint Sources and origins Using and working with materials</p> <p>Skills Project: Lighting Project</p>	<p>Specialist Technical Principles:</p> <p>Stock forms Types and sizes Scales of production Specialist Techniques and Processes. Surface treatments and finishes.</p> <p>Skills Project: Lighting Project</p>	<p>Specialist Technical Principles:</p> <p>Tools, Equipment and Processes How Materials are Cut shaped and formed Commercial Processes The application and use of quality control Specialist unit Papers and boards Specialist unit Timbers</p>	<p>NEA: Introduction to the context</p> <p>Identify, investigate outline design possibilities. Producing a design brief and specification</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">YEAR 11 Textiles</p>	<p>Component 1 Personal project 60% of GCSE (Continued work from year 10)</p> <p>A03 Students will create 2 design ideas and a final design in the lead up to the mock exam in order to experiment, develop and refine their ideas further.</p> <p>A04 Students will create a personal and meaningful response through a final outcome. Students will have the skills to develop an idea from their previous sampling.</p>	<p>A04 Students will complete their final outcome. (10 hour mock exam)</p> <p>A02/A04 Students will refine their final outcome in response to feedback. Students will gather visual imagery to further develop their ideas. They may look at another artist to inspire their development.</p>	<p>Component 2 Externally Set exam 40% of GCSE</p> <p>A01 Students will be using all of their skills developed so far in the course to identify a theme based on the exam paper.</p> <p>A02/A01 Students will further develop their ideas through researching in depth an artist that links their theme. Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media. Students will evaluate and improve as work progresses.</p>	<p>A02/A01 Students will further develop their ideas through researching in depth a second and third artist that links their theme. Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media. Students will evaluate and improve as work progresses.</p>	<p>A03 Students will create 2 design ideas and a final design in the lead up to the real exam in order to experiment, develop and refine their ideas further.</p> <p>A04 Students will create a personal and meaningful response through a final outcome.</p> <p>Students will have the skills to develop an idea from their previous sampling. (10 hour real exam)</p> <p>All work handed in for moderation</p>	

YEAR 11 Food	<p>Real NEA</p> <p>Completing NEA with brief set by exam board to meet the assessment criteria</p> <p>Focus on high skills and presentation in cooking for the practical exam in March</p> <p>Ongoing revision of all theory topics with mock exam every half term</p>	<p>Real NEA</p> <p>Completing NEA with brief set by exam board to meet the assessment criteria</p> <p>Focus on high skills and presentation in cooking for the practical exam in March</p> <p>Ongoing revision of all theory topics with mock exam every half term</p>	<p>Real NEA</p> <p>Completing NEA with brief set by exam board to meet the assessment criteria</p> <p>Focus on high skills and presentation in cooking for the practical exam in March</p> <p>Ongoing revision of all theory topics with mock exam every half term</p>	<p>Real NEA</p> <p>Completing NEA with brief set by exam board to meet the assessment criteria</p> <p>Focus on high skills and presentation in cooking for the practical exam in March</p> <p>Ongoing revision of all theory topics with mock exam every half term</p>	<p>Revision</p> <p>Revision of all theory topics Exam in June</p>	<p>Revision</p> <p>Revision of all theory topics Exam in June</p>
	Year 11 Construction	<p>Unit 2 coursework assignment brief completing write up for x5 practical tasks</p> <p>Reading diagrams and symbols Planning for construction tasks Identifying and calculating resources Setting success criteria Preparing for construction tasks Applying techniques to complete construction tasks</p> <p>Unit 3 Developing knowledge of job roles: activities; responsibilities; outputs</p> <p>Understand how built environment development projects are realised: processes; calculations, assess potential effect of factors on project success; Interpret sources of information</p> <p>Be able to plan projects: Sequence; timing; project planning tools; Set project tolerances,</p>	<p>Unit 2 coursework assignment brief completing write up for x5 practical tasks</p> <p>Reading diagrams and symbols Planning for construction tasks Identifying and calculating resources Setting success criteria Preparing for construction tasks Applying techniques to complete construction tasks</p> <p>Unit 3 Developing knowledge of job roles: activities; responsibilities; outputs</p> <p>Understand how built environment development projects are realised: processes; calculations, assess potential effect of factors on project success; Interpret sources of information</p> <p>Be able to plan projects: Sequence; timing; project planning tools; Set project tolerances</p>	<p>Unit 3: Developing knowledge of job roles: activities; responsibilities; outputs</p> <p>Understand how built environment development projects are realised: processes; calculations, assess potential effect of factors on project success; Interpret sources of information</p> <p>Be able to plan projects: Sequence; timing; project planning tools; Set project tolerances</p> <p>Revision and exam prep</p>	<p>Unit 3: Developing knowledge of job roles: activities; responsibilities; outputs</p> <p>Understand how built environment development projects are realised: processes; calculations, assess potential effect of factors on project success; Interpret sources of information</p> <p>Be able to plan projects: Sequence; timing; project planning tools; Set project tolerances</p> <p>Revision and exam prep</p>	<p>Unit 3: Developing knowledge of job roles: activities; responsibilities; outputs</p> <p>Understand how built environment development projects are realised: processes; calculations, assess potential effect of factors on project success; Interpret sources of information</p> <p>Be able to plan projects: Sequence; timing; project planning tools; Set project tolerances</p> <p>Revision and exam prep</p>

Year 11 Product Design	<p>Non- exam assessment (NEA) focussing on Designing and Making principles:</p> <p>Identify, investigate & outline design possibilities Communication of design ideas</p> <p>Application of the following: Producing a design brief and specification Generating design ideas</p> <p>Continuation of core knowledge and specialists technical principles:</p> <p>Exam Revision.</p>	<p>Non- exam assessment (NEA) focussing on Designing and Making principles:</p> <p>Application of the following: Developing design ideas Realising design ideas Prototype development</p> <p>Continuation of core knowledge and specialists technical principles:</p> <p>Exam Revision.</p>	<p>Non- exam assessment (NEA) focussing on Designing and Making principles:</p> <p>Application of the following: Design & make prototypes that are fit for purpose Realising design ideas</p> <p>Continuation of core knowledge and specialists technical principles:</p> <p>Exam Revision.</p>	<p>Non- exam assessment (NEA) focussing on Designing and Making principles:</p> <p>Application of the following: Analyse & evaluate Analysing & evaluating</p> <p>Continuation of core knowledge and specialists technical principles:</p> <p>Exam Revision.</p>	<p>Continuation of core knowledge and specialists technical principles:</p> <p>Exam Revision.</p> <p>Continuation of core knowledge and specialists technical principles:</p> <p>Exam Revision.</p> <p>All work handed in for moderation</p>	
-------------------------------	--	--	--	---	---	--

YEAR 12 Textiles

Component 1 60%

A01 Students will be given a starting point and will respond to it through mind mapping ideas and creating mood boards. Students will gather visual imagery to further develop their ideas.

A02/A03 Students will explore their theme through line drawing/mark making and other various media.

A02/A01 Students will further develop their ideas through researching in depth a range of artists that link to their theme. Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media. Students will evaluate and improve as work progresses.

A02/A01 Students will further develop their ideas through researching in depth a range of artists that link to their theme. Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media. Students will evaluate and improve as work progresses.

A03 Students will create 2 design ideas and a final design in the lead up to the mock exam in order to experiment, develop and refine their ideas further.

A04 Students will create a personal and meaningful response through a final outcome.

Students will have the skills to develop an idea from their previous sampling. **(10 hour mock exam)**

A02/A04 Students will refine their final outcome in response to feedback. Students will gather visual imagery to further develop their ideas. They may look at another artist to inspire their development.

Component 2 Externally Set exam 40% of AS level

A01 Students will be using all of their skills developed so far in the course to identify a theme based on the exam paper.

Students respond to their new theme through mind mapping ideas and creating mood boards. They will research artists showing how the work of others linked to their ideas and theme. Students will gather visual imagery to further develop their ideas.

A02/A01 Students will further develop their ideas through researching in depth a range of artists that link to their theme. Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media. Students will evaluate and improve as work progresses.

A02/A01 Students will further develop their ideas through researching in depth a range of artists that link to their theme. Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media. Students will evaluate and improve as work progresses.

A03 Students will create 2 design ideas and a final design in the lead up to the mock exam in order to experiment, develop and refine their ideas further.

A04 Students will create a personal and meaningful response through a final outcome.

Students will have the skills to develop an idea from their previous sampling.

Component 1 60% (A level)

A01 Students will choose a starting point of their choice and will respond to it through mind mapping ideas and creating mood boards. Students will gather visual imagery to further develop their ideas.

A03 Students will write an essay showing their analytical skills through an extended piece of writing. (1000-3000 word count). The essay is based on their theme.

A03 Students will write an essay showing their analytical skills through an extended piece of writing. (1000-3000 word count). The essay is based on their theme.

Component 1 60%

A02/A03 Students will explore their theme through line drawing/mark making and other various media.

A02/A01 Students will further develop their ideas through researching in depth a range of artists that link to their theme. Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media.

Students will evaluate and improve as work progresses.

A02/A01 Students will further develop their ideas through researching in depth a range of artists that link to their theme.

Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media. Students will evaluate and improve as work progresses.

A03 Students will create 2 design ideas and a final design in the lead up to the mock exam in order to experiment, develop and refine their ideas further.

A04 Students will create a personal and meaningful response through a final outcome. Students will have the skills to develop an idea from their previous sampling. **(10 hour mock exam)**

A02/A04 Students will refine their final outcome in response to feedback. Students will gather visual imagery to further develop their ideas. They may look at another artist to inspire their development.

Component 2 Externally Set exam 40% of AS level

A01 Students will be using all of their skills developed so far in the course to identify a theme based on the exam paper.

Students respond to their new theme through mind mapping ideas and creating mood boards. They will research artists showing how the work of others linked to their ideas and theme. Students will gather visual imagery to further develop their ideas.

A02/A01 Students will further develop their ideas through researching in depth a range of artists that link to their theme. Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media. Students will evaluate and improve as work progresses.

A02/A01 Students will further develop their ideas through researching in depth a range of artists that link to their theme. Students will create samples inspired by their chosen artists to understand their style and develop further their handling of media. Students will evaluate and improve as work progresses.

A03 Students will create 2 design ideas and a final design in the lead up to the mock exam in order to experiment, develop and refine their ideas further.

A04 Students will create a personal and meaningful response through a final outcome.

Students will have the skills to develop an idea from their previous sampling.

All work handed in for moderation

Year 12 Product Design	<p>Non- exam assessment (NEA)</p> <p>Identify, investigate & outline design possibilities Identify and investigate design possibilities</p> <p>Written Paper 1:</p> <p>Core Technical Principles Materials and their application:</p> <p>Exam Revision: Characteristics of Papers and Boards Characteristics of Polymers Characteristics of Woods</p>	<p>Non- exam assessment (NEA)</p> <p>Section B Producing a design brief and specification</p> <p>Written Paper 1:</p> <p>Exam Revision: Characteristics of Metals Composite, smart and modern materials</p> <p>Processing and working with papers and boards</p>	<p>Non- exam assessment (NEA)</p> <p>Design & make prototypes that are fit for purpose Development of design proposals Development of design prototype(s)</p> <p>Written Paper 1:</p> <p>Exam Revision:</p> <p>Processing and working with Polymers Processing and working with Woods Processing and working with Metals</p>	<p>Non- exam assessment (NEA)</p> <p>Analyse & evaluate Section E Analysing and evaluating</p> <p>Written Paper 1:</p> <p>Exam Revision: Modern Industrial and Commercial Practice Product design considerations</p> <p>Product design considerations</p> <p>NEA Hand in</p>	<p>Written Paper 1:</p> <p>Exam Revision:</p> <p>Product design and development Design Processes Responsible design</p>	
-------------------------------	---	---	---	--	---	--