fortismere D&T Product Design KS5 Curriculum Map 2023-24

Yr12 (KS5) D&T Product Design	Topic Area	Knowledge/Skills that are taught	Knowledge/Skills revisited	What does good look like?	Resources/support at home
Autumn 1	Design communication Torch D&M H&S Driving licence - machine competency	 1.1 Materials & their applications 1.14 Design communication 1.9 Health & Safety 	The KS5 D&T curriculum builds directly on KS4 content covered in D&T Product Design. Students who have completed a GCSE in D&T Textiles or Engineering may be less secure in some aspects of the Specialist Designing & making principles. This project revisits the designing, making, evaluation skills and technical knowledge covered in KS4. In this part of the project, pupils have an opportunity to build on a range of design communication skills, understanding of materials and their applications, performance and characteristics. Health & safety is revisited and covered in detail. Teaching of units 1.1, 1.9, 1.14 builds on learning from KS4.	 Knowledge / understanding Students know key words and terms for each unit: 1.1, 1.9, 1.14. Students are able to complete short-answer and extended response past paper questions for the unit covered. Skills Students develop a range of skills as outlined in Section 3- Non-Examined Assessment, of the specification. Students produce strong design work that may later be used in their university application portfolio. 	Quizlet PG online learning resources Exampro - AQA Past/sample paper questions Hodder textbook
Autumn 2	Playing cards Generating & realising designs Egg cup Generating & realising designs CAD/CAM Serpentine pavilionGenerating & prototyping designs NEA style project - laptop desk	1.2 Performance & characteristics 1.6 Modern & industrial scales of practice 1.7 Digital design & manufacture	Students complete several short Design & Make projects. Pupils have an opportunity to develop and build on designing and design communication skills through production, development and presentation of design ideas. Students build on KS4 iterative design & making skills through modelling in a range of resistant materials, using different tools, equipment and processes. Technical knowledge and skills are revisited. Teaching of units 1.2, 1.6 & 1.7 builds on learning from KS4.	Knowledge / understandingStudents know key words and terms for eachunit: 1.2, 1.6 & 1.7Students are able to complete short-answerand extended response past paper questionsfor the unit covered.SkillsStudents develop a range of skills as outlinedin Section 3- Non-Examined Assessment, ofthe specification.Students produce strong design work that maylater be used in their university applicationportfolio.	Quizlet PG online learning resources Exampro - AQA Past/sample paper questions Hodder textbook
Spring 1	AO1 Section A Identifying and investigating design possibilities AO1 Section B Producing a design brief & spec.	1.8 The requirements for product design & development 1.10 Protecting designs & intellectual property	In this half-term, students undertake an NEA Design & Make project. Pupils have an opportunity to revisit & build on skills, knowledge and understanding covered in Section A & B of their GCSE NEA Projects. Teaching of units 1.8 & 1.10 builds on learning from KS4.	Knowledge / understanding Students know key words and terms for each unit: 1.8 & 1.10. Students are able to complete short-answer and extended response past paper questions for the unit covered. Skills	Quizlet PG online learning resources AQA Past/sample paper questions Hodder textbook

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				Students complete an NEA style project and develop a range of skills as outlined in Section 3- Non-Examined Assessment, of the specification. Students produce strong design work that may later be used in their university application portfolio.	
Spring 2	AO2 Section C Development of design proposals AO2 Section D Development of design prototypes AO3 Section E Analysing & evaluating	1.11 Design for manufacturing, maintenance, repair & disposal 1.12 Feasibility studies 1.13 Enterprise & marketing in the development of	In this half-term, students undertake an NEA Design & Make project. Pupils have an opportunity to revisit & build on skills, knowledge and understanding covered in Sections C & D of their GCSE NEA Projects. Students build iterative design & making skills through drawing and modelling in a range of media, using different tools, equipment and processes. Technical knowledge and skills are revisited. Teaching of units 1.11, 1.12 & 1.13 builds on learning from KS4.	 Knowledge / understanding Students know key words and terms for each unit: 1.11, 1.12 & 1.13. Students are able to complete short-answer and extended response past paper questions for the unit covered. Skills Students complete an NEA style project and develop a range of skills as outlined in Section 3- Non-Examined Assessment, of the specification. Students produce strong design work that may later be used in their university application portfolio. 	Quizlet PG online learning resources Exampro - AQA Past/sample paper questions Hodder textbook
Summer 1	AO2 Section D Development of design prototypes AO3 Section E Analysing & evaluating	1.4 Forming, redistribution & addition processes	In this half-term, students undertake an NEA Design & Make project. Pupils have an opportunity to revisit & build on skills, knowledge and understanding covered in Sections D & E of their GCSE NEA Projects. Students build iterative design & making skills through drawing and modelling in a range of media, using different tools, equipment and processes. Technical knowledge and skills are revisited. Teaching of unit 1.4 builds on learning from KS4.	 Knowledge / understanding Students know key words and terms for each unit: 1.4. Students are able to complete short-answer and extended response past paper questions for the unit covered. Skills Students complete an NEA style project and develop a range of skills as outlined in Section 3- Non-Examined Assessment, of the specification. Students produce strong design work that may later be used in their university application portfolio. 	Quizlet PG online learning resources Exampro - AQA Past/sample paper questions Hodder textbook
Summer 2	Year 12 End of year exam preparation NEA AO1 Section A Identifying and investigating design possibilities	Mock Exam preparation Revision, exam practice and technique 3.12 NEA	Subject knowledge covered in Year 12 is revisited prior to Mock Exams. Students also make a start on their final NEA project, revisiting skills & knowledge learned in Section A & B of the short NEA style project completed in Spring 2.	 Knowledge / understanding Students know key words and terms for each unit covered in Year 12. Students are able to complete short-answer and extended response past paper questions for the unit covered. Skills Students start work on their final NEA project. Identifying and investigating appropriate design possibilities. 	Quizlet PG online learning resources Exampro - AQA Past/sample paper questions Hodder textbook

Yr13 (KS5) D&T Product Design	Topic Area	Knowledge/Skills that are taught	Knowledge/Skills revisited	What does good look like?	Resources/support at home
Autumn 1	AO1 Section A Identify, investigate & outline design possibilities AO1 Section B Producing a design brief specification AO2 Section C Development of design AO3 Section E Analysing & evaluating	 1.3 Enhancement of materials 1.5 The use of finishes 1.10 Protecting designs & intellectual property 1.11 Design for manufacturing, maintenance, repair & disposal 1.12 Feasibility studies 1.13 Enterprise & marketing in the of products 	In this half-term, students continue with their final NEA projects. Pupils have an opportunity to revisit & build on skills, knowledge and understanding covered in Sections AO1 A, B&C of the short NEA style project completed in Year 12 Students continue to build on iterative design & making skills through drawing and modelling in a range of media, using different tools, equipment and processes. Technical knowledge and skills are revisited. Teaching of units 1.3, 1.5, 1.10, 1.11, 1.12 & 1.13 builds on learning from KS4.	Knowledge / understandingStudents know key words and terms for eachunit: 1.3, 1.5, 1.10, 1.11, 1.12 & 1.13.Students are able to complete short-answerand extended response past paper questionsfor the unit covered.SkillsDevelopment of skills relevant to the NEA, ascovered in Section 4 of the spec.NEA sections are completed to deadline andwhen assessed match descriptors for thehighest levels.	Quizlet PG online learning resources Exampro - AQA Past/sample paper questions Hodder textbook
Autumn 2	AO2 Section C Development of design proposals AO2 Section D Development of design prototypes AO3 Section E Analysing & evaluating	 2.1 Design methods & processes 2.2 Design theory 2.3 Technology & cultural changes 2.4 Design processes 	In this half-term, students continue with their final NEA projects. Pupils have an opportunity to revisit & build on skills, knowledge and understanding covered in Sections AO1 C&D of the short NEA style project completed in Year 12. Students continue to build on iterative design & making skills through drawing and modelling in a range of media, using different tools, equipment and processes. Technical knowledge and skills are revisited. Teaching of units 2.1, 2.2, 2.3 & 2.4 builds on learning from KS4.	Knowledge / understanding Students know key words and terms for each unit: 2.1, 2.2, 2.3 & 2.4. Students are able to complete short-answer and extended response past paper questions for the unit covered. Skills Development of skills relevant to the NEA, as covered in Section 4 of the spec. NEA sections are completed to deadline and when assessed match descriptors for the highest levels.	Quizlet PG online learning resources Exampro - AQA Past/sample paper questions Hodder textbook
Spring 1	AO2 Section D Development of design prototypes AO3 Section E Analysing & evaluating	 2.5 Critical analysis & evaluation 2.6 Selecting appropriate tools, equipment & processes 2.7 Accuracy in design & manufacture 	In this half-term, students continue with their final NEA projects. Pupils have an opportunity to revisit & build on skills, knowledge and understanding covered in Sections AO1 D&E of the short NEA style project completed in Year 12 Students continue to build on iterative design & making skills through drawing and modelling in a range of media, using different tools, equipment and processes. Technical knowledge and skills are revisited. Teaching of units 2.5, 2.6 & 2.7 builds on	Knowledge / understanding Students know key words and terms for each unit: 2.5, 2.6 & 2.7. Students are able to complete short-answer and extended response past paper questions for the unit covered. Skills Development of skills relevant to the NEA, as covered in Section 4 of the spec. NEA sections are completed to deadline and when assessed match descriptors for the highest levels.	Quizlet PG online learning resources Exampro - AQA Past/sample paper questions Hodder textbook
Spring 2	AO2 Section D Development of design prototypes	2.8 Responsible design 2. 9 Design for manufacture & project management	learning from KS4. In this half-term, students continue with their final NEA projects. Pupils have an opportunity to revisit & build on skills,	Knowledge / understanding Students know key words and terms for each unit: 2.8, 2.9, 2.10 & 1.4.	Quizlet PG online learning resource



	AO3 Section E Analysing & evaluating	D&T Product Design KS5 Cur 2.10 National & international standards in PD 1.4 Forming, redistribution & addition processes	knowledge and understanding covered in Sections AO1 D&E of the short NEA style project completed in Year 12 Students continue to build on iterative design & making skills through drawing and modelling in a range of media, using different tools, equipment and processes. Technical knowledge and skills are revisited. Teaching of units 2.8, 2.9, 2.10 & 1.4 builds on learning from KS4.	Students are able to complete short-answer and extended response past paper questions for the unit covered. Skills Development of skills relevant to the NEA, as covered in Section 4 of the spec. NEA sections are completed to deadline and when assessed match descriptors for the highest levels.	Exampro - AQA Past/sample paper questions Hodder textbook
Summer 1	A-level exam preparation - Paper 1 & 2	Maths / exam technique & practice	Subject knowledge covered in Year 12 & 13 is revisited prior to final examinations.	Knowledge / understanding Students know key words and terms for all units. Students are able to complete short-answer and extended response past paper questions for all units. Students are able to complete Maths questions with confidence.	Quizlet PG online learning resources Exampro - AQA Past/sample paper questions Hodder textbook
Summer 2					