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 |

| forti | smere | D&T Product Design KS5 Cur | riculum Map 2023-24 | | |
|----------|--|--|---|---|--|
| | | | | 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 | | | | | |