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## Y12 Edexcel DT: Product Design -

|  |  | W/C 2 <sup>nd</sup> November  | W/C 9 <sup>th</sup> November   | W/C 16 <sup>th</sup> November  |  |  |
|--|--|---|--|--|--|--|
| How  | you will access home learning  | The PowerPoints and lesson materials will be available in our Y12 group on Microsoft Teams (Y12 DT Product Design). You will also need to access Focus on DT (link on school website)   |  |  |  |  |
| How you be able to interact with your teacher and gain feedback on your work |  | You will be able to join each lesson via Microsoft Teams. This will enable you to listen to teacher delivery, to ask questions, and to complete the same tasks live, as those who are working in the lesson.  You can join in with questioning in the lesson using the chat function to check your understanding.                               |  |  |  |  |
| Retrieval How we will help you to recall previously learnt knowledge         |  | Exam style question: Outline the working properties of mild steel that make it a suitable material from which to make the handle of the paper punch (4 marks)   | Exam style question: Describe the process of tempering high carbon steel (2 marks)   | Exam style question: Describe the process of injection moulding. Start your description after the hopper has been filled with polymer granules and finish it at the point of the moulding being ejected. (6 marks) |  |  |
| New Learning   | What you will be<br>learning about this<br>week                          | Maths: Numbers & Units<br>Core DT: Textile theory   | Maths: Percentages<br>Core DT: Smart & Modern Materials  | Maths: Ratios<br>Core DT: Digital technologies, CAD &<br>CAM   |  |  |
|  | How we will teach<br>you the new<br>knowledge or ideas                   | PowerPoint content and teacher led explanations to support you in completing revision notes based on Textiles.  | PowerPoint content and teacher led explanations to support you in completing revision notes based on Smart and Modern Materials. | PowerPoint content and teacher led explanations to support you in completing revision notes based on Digital Technologies.   |  |  |
|  | Activities that will help you learn and practice what you've been taught | Example maths questions from past exam papers. Production of revision materials and the completion of Knowledge Map questions   |  |  |  |  |
|  | What you can do if you are stuck   | Join the live lesson on MS Teams.  Use BBC Bitesize Revision, <a href="www.technologystudent.com">www.technologystudent.com</a> , Focus eLearning on the school homepage under the Links tab, use your Maths revision guide or access the digital revision guide, G:\Technology\New D&T Digital Textbook and NEA delivery guide to support you. |  |  |  |  |

|  |   | W/C 23 <sup>rd</sup> November   | W/C 30 <sup>th</sup> November  | W/C 7 <sup>th</sup> December   | W/C 14th December   |  |  |
|--|---|---|--|--|---|--|--|
| How you will access home learning  |   | The PowerPoints and lesson materials will be available in our Y12 group on Microsoft Teams (Y12 DT Product Design).  You will also need to access Focus on DT (link on school website).   |  |  |   |  |  |
| How you be able to interact with your teacher and gain feedback on your work |   | You will be able to join each lesson via Microsoft Teams. This will enable you to listen to teacher delivery, to ask questions, and to complete the same tasks live, as those who are working in the lesson.  You can join in with questioning in the lesson using the chat function to check your understanding. |  |  |   |  |  |
| Retrieval How we will help you to recall previously learnt knowledge         |   | Exam style question: Explain one reason why chipboard is a more stable material than solid wood. (2 marks)  | Exam style question: Explain two reasons why metal handles would be electro-plated with brass. (4 marks)   | Exam style question:  Name two high volume commercial printing methods that could be used to produce the packaging with full colour photographs. (2 marks) | Exam style question:<br>Explain two benefits that mass<br>production has had on<br>employment. (6 marks)                |  |  |
| New Learning   | What you will be<br>learning about this<br>week                                   | Maths: Surface Areas<br>Core DT: Metals (Tea light<br>project, welding & forging)   | Maths: Volumes<br>Core DT: Metals (Tea light<br>project practical work)  | Maths: Trigonometry<br>(Pythagoras)<br>Core DT: Designers and their<br>influences  | Maths: Trigonometry<br>(Sine & Cosine)  |  |  |
|  | How we will teach<br>you the new<br>knowledge or ideas                            | PowerPoint content and teacher led explanations to support you in; Marking out, Cutting, Filing and Drilling metal bar based on a working drawing. Teacher led demonstration based on blacksmithing techniques and welding.   | PowerPoint content and teacher led explanations to support you in; Marking out, Cutting, Filing and Drilling metal bar based on a working drawing. | PowerPoint content and teacher led explanations to support you in completing revision notes based on Designers and their influences.                       | PowerPoint content and teacher led explanations to support you in completing past exam questions based on Trigonometry. |  |  |
|  | Activities that will<br>help you learn and<br>practice what you've<br>been taught | Example maths questions from past exam papers.<br>You will produce a nightlight holder, using your practical skills<br>within metal work.   |  | Example maths questions from past exam papers. Production of revision materials and the completion of Knowledge Map questions                              | Example maths questions from past exam papers.  |  |  |
|  | What you can do if you are stuck  | <u> </u>  | ww.technologystudent.com, Focuss the digital revision guide, G:\   | esson on MS Teams.<br>Is eLearning on the school homepag<br>Technology\New D&T Digital Text<br>port you.   | •   |  |  |