

Subject Product Design

Year 10

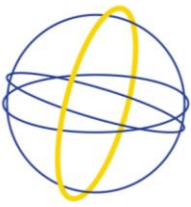
**Curriculum Map
2017 -2018**

| Week Commencing | Topic (including links to additional resources) | Assessment Window |
|--------------------------|---|-------------------|
| 9/10/17 | CAT - creative design ideas. Creative ideas, imaginative, unique design development. Research a range of solutions to the original design brief and annotate ideas. | |
| 16/10/17 | CAT - creative design ideas. Creative ideas, imaginative, unique design development. Research a range of solutions to the original design brief and annotate ideas. | AR1 |
| October Half Term | | |
| 30/10/17 | CAT - creative design ideas. Modify through discussion, link to design brief. Linking to the exam board criteria. | AR1 |
| 6/11/17 | CAT - creative design ideas. Evaluate and justify you design ideas. Linking to the exam board criteria. | |
| 13/11/17 | Development of final solution through modelling. Through 3D explain your design idea. | |
| 20/11/17 | Production in large numbers. Look at 3D printing and mass production in detail. Linking to the exam board criteria. | |
| 27/11/17 | Development of final solution. Through analysis and evaluation justify your final solution. | |
| 4/12/17 | Development of final solution. Through analysis and evaluation justify your final solution. | |
| 11/12/17 | Development of final solution and working drawing. Through analysis and evaluation justify your final solution | |
| Christmas Break | | |
| 1/1/18 | Understanding of CAD software. Students to develop an understanding of the key features of 'SketchUp'. | |

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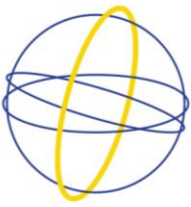


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| 8/1/18 | Understanding of CAD software. Students to develop an understanding of the key features of 'SketchUp'. | |
| 15/1/18 | Students to develop their own designs in SketchUp. Use of advanced features to develop designs. | |
| 22/1/18 | Rendering of designs in SketchUp. Students to include logos and images in their designs to show greater understanding of the software. | AR2 |
| 29/1/18 | Preparation of SketchUp designs to ensure that they are ok for 3D printing. Development of complicated features ensuring a range of skills is shown. | AR2 |
| 5/2/18 | Preparation of SketchUp designs to ensure that they are ok for 3D printing. Development of complicated features ensuring a range of skills is shown. | |
| 12/2/18 | Preparation of SketchUp designs to ensure that they are ok for 3D printing. Development of complicated features ensuring a range of skills is shown. | |
| February Half Term | | |
| 26/2/18 | Preparation of SketchUp designs to ensure that they are ok for 3D printing. Development of complicated features ensuring a range of skills is shown. | |
| 5/3/18 | Introduction to Electronics. Develop an understanding of key components and their task. | |
| 12/3/18 | Introduction to Electronics. Develop an understanding of key components and their task. | |
| 19/3/18 | Introduction to Arduino and simple programming. Development of an understanding of how to develop a control program. | |
| 26/3/18 | Introduction to Arduino and simple programming. Development of an understanding of how to develop a control program. | |
| Easter | | |
| 16/4/18 | Development of circuits to include a number of inputs. Develop an understanding of digital and analogue signals. | AR3 |

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| 23/4/18 | Development of circuits to include a number of inputs. Develop an understanding of digital and analogue signals. | AR3 |
| 30/4/18 | Development of circuits to include a number of inputs. Develop an understanding of digital and analogue signals. | |
| 7/5/18 | Creation of a circuit that has an input created by the students (assessment task). Development of an 'expert circuit and program' in line with exam board expectations. | |
| 14/5/18 | Creation of a circuit that has an input created by the students (assessment task). Development of an 'expert circuit and program' in line with exam board expectations. | |
| 21/5/18 | Discussion in coursework to ensure that it includes discussions relating to pro's and con's of CAD/CAM. Suggestions seen in coursework of how students could use alternatives to the CAM already used and why. | |
| May Half Term | | |
| 4/6/18 | Students to follow clear instructions to ensure that their coursework has met all exam board requirements. Develop coursework to meet the expert criteria of the exam board. | |
| 11/6/18 | Students to follow clear instructions to ensure that their coursework has met all exam board requirements. Develop coursework to meet the expert criteria of the exam board. | |
| 18/6/18 | Students to follow clear instructions to ensure that their coursework has met all exam board requirements. Develop coursework to meet the expert criteria of the exam board. | AR4 |
| 25/6/18 | Students to follow clear instructions to ensure that their coursework has met all exam board requirements. Develop coursework to meet the expert criteria of the exam board. | AR4 |
| 2/7/18 | Students to follow clear instructions to ensure that their coursework has met all exam board requirements. Develop coursework to meet the expert criteria of the exam board. | |
| 9/7/18 | Students to follow clear instructions to ensure that their coursework has met all exam board requirements. Develop coursework to meet the expert criteria of the exam board. | |
| 16/7/18 | Students to follow clear instructions to ensure that their coursework has met all exam board requirements. Develop coursework to meet the expert criteria of the exam board. | |

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