**Curriculum Map Year 8 Design Tech 2022/23**

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|  | **BLOCK 1** | | **BLOCK 2** | | **BLOCK 3** | |
|  | **Term 1** | **Term 2** | **Term 3** | **Term 4** | **Term 5** | **Term 6** |
| **Dates** | 1st September – 21st October | 31st October – 22nd December | 9th January –10th February | 20th February – 31st March | 17th April – 26th May | 5th June – 21st July |
| **Weeks** | 8 Weeks | 8 Weeks | 5 Weeks | 6 Weeks | 6 Weeks | 7 weeks |
| **Assessment** |  | | AP1:Y7-10 and 12. W/B Jan 16th, 16 weeks in (1 lesson assessment) | | AP2:Y7-9 W/B June12th, 16 weeks from AP1. (1 lesson assessment) | |
| **Lessons** | 8 Lessons | 8 Lessons | 5 Lessons | 6 Lessons | 6 Lessons | 7 Lessons |
| **Inset** | 1S September, 2nd September 23rd December (School Closed) | | 4th, 5th & 6th January | |  | |
| **Unit Title** | **Y8 Design Tech: Wooden wheel toy** | | **Y8 Design Tech: Cam toy** | | **Y8 Design Tech: Puzzle Toy** | |
| **Sequence** | **Wooden wheel toy – Pickup truck**  Design brief and task analysis  Product Analysis – ACCESS FM  Design Specification  Initial design ideas  Final Design – Oblique drawing  Manufacture wooden toy  CAD skills (development of 3D SketchUp drawing ICT)  Photograph and evaluate product | | **Child cam toy mechanisms project**  Research tasks  Initial design ideas  Independently hand drawn design of cam toy  Final design  H&S workshop  Making the wooden toy frame from a plan to set specifications & size.  Independent design of follower and decoration  Photograph and evaluate product | | **Puzzle toy project**  Research task and exploring existing products  Initial design ideas  CAD skills  Final Design  Finish and construct final product  Photograph and evaluate product | |
| **Key Building Blocks** | Understand the importance of a design brief and how to interpret a design brief  Research knowledge and understanding of existing products, materials, tools and manufacturing processes  How to critically analyse existing products using ACCESS FM  Understand the importance of a Design Specification and how to produce your own  Design ideas and development of iterations  Rendering and oblique drawing skills  Understanding the different properties and uses of different woods- soft wood, hardwood and manufactured boards  Construction of a final product - Developing workshop skills: pillar drill, band facer; use of hand tools/processes: Coping saw, Tenon saw, sanding, pyrography, screw-driver  Finishing skills: paint/stain, varnish and pyrography  CAD skills learning to use 3D /model/sketch up  Evaluate, Written evaluation, peer evaluate and discuss the classes products | | Research knowledge and understanding existing products  H&S in the workshop  Design ideas and development of iterations  Interpreting and understanding a working drawing  Rendering and oblique drawing skills  Construction of a final product  Use of hand tools/processes: Coping saw, Tenon saw, sanding, pyrography, screw-driver  Use of workshop machines: Pillar drill, band facer/sander.  Finishing skills: paint/stain, varnish and pyrography  Evaluate, Written evaluation, peer evaluate and discuss the classes products | | Research existing products and materials  Produce initial design ideas – freehand / technical sketch  CAD skills – 2D design  H&S in the workshop  Understanding the different properties and uses of different materials  Design ideas and development of iterations  Construction of a final product  Use of hand tools/processes: Coping saw, tenon saw, sanding, pyrography,  Use of workshop machines: Pillar drill, band facer/sander, fret saw.  Finishing skills: paint/stain, varnish and pyrography  Evaluate, Written evaluation, peer evaluate and discuss the classes products | |
| **Retrieval Practices** | Do Now activities  Low stakes quizzes  Interleaved themes | | Do Now activities  Low stakes quizzes  Interleaved themes | | Do Now activities  Low stakes quizzes  Interleaved themes | |
| **Key Skills** | H&S in the workshop  Drawing skills  CAD modelling skills  Practical workshop skills: use of various hand tools and machines  Finishing skills | | H&S in the workshop  Drawing skills  Practical workshop skills: use of various hand tools and machines  Finishing skills | | CAD skills and ICT  H&S in the workshop  Drawing Skills  Practical workshop skills: use of various hand tools and machines  Finishing skills | |
| **Literacy** | Written & Oral communication  Paragraph structure  Vocab development | | Written & Oral communication  Paragraph structure  Vocab development | | Written & Oral communication  Paragraph structure  Vocab development | |
| **Numeracy** | The decimal system—mm, cm and meters – practicing measuring and marking out  Ratios when designing the product. 3D shapes in virtual and physical  Radius, Diameter. Geometric terms: Horizontal, Vertical, Height, Width, Depth, Parallel | | The decimal system—mm, cm and meters – practicing measuring and marking out  Ratios when designing the product. 3D shapes in virtual and physical  Radius, Diameter. Geometric terms: Horizontal, Vertical, Height, Width, Depth, Parallel | | The decimal system—mm, cm and meters – practicing measuring and marking out  Ratios when designing the product. 3D shapes in virtual and physical  Radius, Diameter. Geometric terms: Horizontal, Vertical, Height, Width, Depth, Parallel | |
| **Formative Assessment** | Peer & Self-Assessment  Teacher feedback | | Peer & Self-Assessment  Teacher feedback | | Peer & Self-Assessment  Teacher feedback | |
| **Summative Assessment** |  | | AP1 | | AP2 | |
| **Social** | Students work as a team, recognising others’ strengths and sharing equipment. Design Technology promotes equality of opportunity and provides an awareness of areas that have gender issues e.g. encouraging girls to use equipment that has been traditionally male dominated. Students consider the technological impact on their lives as well as others and how it affects them. Social development is a key feature of all design & technology lessons. We teach the concept of self-regulation to ensure that students accept responsibility for their behaviour and the safety of others | | | | | |
| **Moral** | It encourages pupils to value the environment and its natural resources and to consider the environmental impact of everyday products. It educates pupils to become responsible consumers. Students design and make products that do not offend.  Students consider the material and product they design and manufacture | | | | | |
| **Spiritual** | Students get a great sense of enjoyment from creating products in the areas of design technology. The fun element of making, testing and evaluating using new skills gives students opportunities to challenge themselves and discover talents they were unaware of.  Students are introduced to new and smart materials and their numerous applications | | | | | |
| **Cultural** | DT reflects on ingenious products and inventions, the diversity of materials and ways in which DT can improve the quality of life. When students make their product, they might look at their product and how it is used in other cultures and throughout history | | | | | |
| **British Values** |  | |  | |  | |
| **Gatsby Benchmark 4 Linking curriculum to careers** |  | | | | | |