**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 analysisProduct Analysis – ACCESS FMDesign SpecificationInitial design ideasFinal Design – Oblique drawingManufacture wooden toy CAD skills (development of 3D SketchUp drawing ICT) Photograph and evaluate product | **Child cam toy mechanisms project** Research tasksInitial design ideasIndependently hand drawn design of cam toyFinal designH&S workshopMaking the wooden toy frame from a plan to set specifications & size.Independent design of follower and decorationPhotograph and evaluate product | **Puzzle toy project** Research task and exploring existing productsInitial design ideasCAD skills Final Design Finish and construct final productPhotograph and evaluate product |
| **Key Building Blocks** | Understand the importance of a design brief and how to interpret a design briefResearch knowledge and understanding of existing products, materials, tools and manufacturing processesHow to critically analyse existing products using ACCESS FMUnderstand the importance of a Design Specification and how to produce your ownDesign ideas and development of iterationsRendering and oblique drawing skillsUnderstanding the different properties and uses of different woods- soft wood, hardwood and manufactured boardsConstruction of a final product - Developing workshop skills: pillar drill, band facer; use of hand tools/processes: Coping saw, Tenon saw, sanding, pyrography, screw-driverFinishing skills: paint/stain, varnish and pyrographyCAD skills learning to use 3D /model/sketch upEvaluate, Written evaluation, peer evaluate and discuss the classes products | Research knowledge and understanding existing productsH&S in the workshopDesign ideas and development of iterationsInterpreting and understanding a working drawingRendering and oblique drawing skillsConstruction of a final product Use of hand tools/processes: Coping saw, Tenon saw, sanding, pyrography, screw-driverUse of workshop machines: Pillar drill, band facer/sander.Finishing skills: paint/stain, varnish and pyrographyEvaluate, Written evaluation, peer evaluate and discuss the classes products | Research existing products and materialsProduce initial design ideas – freehand / technical sketchCAD skills – 2D designH&S in the workshopUnderstanding the different properties and uses of different materialsDesign ideas and development of iterationsConstruction 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 pyrographyEvaluate, Written evaluation, peer evaluate and discuss the classes products |
| **Retrieval Practices** | Do Now activitiesLow stakes quizzesInterleaved themes  | Do Now activitiesLow stakes quizzesInterleaved themes  | Do Now activitiesLow stakes quizzesInterleaved themes  |
| **Key Skills** | H&S in the workshopDrawing skills CAD modelling skillsPractical workshop skills: use of various hand tools and machinesFinishing skills | H&S in the workshopDrawing skills Practical workshop skills: use of various hand tools and machinesFinishing skills | CAD skills and ICTH&S in the workshopDrawing Skills Practical workshop skills: use of various hand tools and machinesFinishing skills |
| **Literacy** | Written & Oral communicationParagraph structureVocab development | Written & Oral communicationParagraph structureVocab development | Written & Oral communicationParagraph structureVocab development |
| **Numeracy** | The decimal system—mm, cm and meters – practicing measuring and marking outRatios when designing the product. 3D shapes in virtual and physicalRadius, Diameter. Geometric terms: Horizontal, Vertical, Height, Width, Depth, Parallel | The decimal system—mm, cm and meters – practicing measuring and marking outRatios when designing the product. 3D shapes in virtual and physicalRadius, Diameter. Geometric terms: Horizontal, Vertical, Height, Width, Depth, Parallel |  The decimal system—mm, cm and meters – practicing measuring and marking outRatios when designing the product. 3D shapes in virtual and physicalRadius, Diameter. Geometric terms: Horizontal, Vertical, Height, Width, Depth, Parallel |
| **Formative Assessment** | Peer & Self-AssessmentTeacher feedback | Peer & Self-AssessmentTeacher feedback | Peer & Self-AssessmentTeacher 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** |  |