

Curriculum implementation for Core Design and Technology – Year 8



A well sequenced and logical curriculum that builds knowledge and skills over time.

Assessment centred around the KS3 curriculum Principles of Knowledge, design, make and evaluate.

Year 8 Design Technology	Topics/Units to be taught Each unit below is taught over a block. Students experience a rotation system through the projects.	Making skills to be developed (health and safety)	Assessment	Prepares the way for....	Wider Curriculum Links (other curriculum areas, industry, big characters, real life, trips, guest speakers)
Money Box overview:	Students are to design and make a money box using a range of skills. Ideas will be generated using 3D CAD software				
12-14 weeks 2, 100 minute lesson per fortnight. 10 weeks – 10 lessons	<p>Knowledge:</p> <ul style="list-style-type: none"> Natural timbers Addition Polymers Quality control <p>Design:</p> <ul style="list-style-type: none"> Design using isometric sketching 3D CAD final sketch <p>Make:</p> <ul style="list-style-type: none"> Half lap joint Temporary joints Drilling Pillar drill and flat bits Scroll saw <p>Evaluate:</p> <ul style="list-style-type: none"> Peer evaluation of designs <p style="background-color: #90EE90;">CHALLENGE TASK: Use CAD software to create a camera using the revolve function</p>	<ul style="list-style-type: none"> Marking out with a marking gauge Tenon saw and bench hook Drilling Sanding/ Sanding machine Router Scroll saw/ Coping saw Pillar/Bench drill Filing 	<p>This unit has three formal assessment areas:</p> <ul style="list-style-type: none"> A02a Design ideas using CAD A02e – Making skills A03f – Evaluation of outcome <p>Throughout the project, students will be given verbal feedback on their progress.</p> <p>At assessment points students will receive a highlighted success criteria. Green is achieved and red is next steps. Students will feedback from a teacher led question which identifies common mistakes. Written in green pen. The end of unit test is a gauge of knowledge acquired within that unit.</p>	<ul style="list-style-type: none"> Improved workshop knowledge and understanding of working practically. Improved Knowledge, understanding and practice of Health and Safety. Improved Independence 	<ul style="list-style-type: none"> English – Written explanations of work. Self/peer assessment. Maths- Using measurement with precision and with tolerance.
Light	Students are to make a light using the process of soldering				
13-14 weeks 2, 100 minute lesson per fortnight. 4 weeks - 4 lessons	<p>Knowledge:</p> <ul style="list-style-type: none"> Inputs Processes Outputs <p>Make:</p> <ul style="list-style-type: none"> Coping / scroll saws Disc sander Plastic oven Drilling holes Soldering Hole saw <p style="background-color: #90EE90;">CHALLENGE TASK: To draw an exploded view of the product in sections.</p>	<ul style="list-style-type: none"> Using the scroll saws/ coping saws safely Soldering Using the cordless power drills with drill bits and hole saws Plastics oven for bending acrylic 	<p>This unit has 2 formal assessment areas:</p> <ul style="list-style-type: none"> A02e – Making skills End of unit test on knowledge <p>Throughout the project, students will be given verbal feedback on their progress.</p> <p>At assessment points students will receive a highlighted success criteria. Green is achieved and red is next steps. Students will feedback from a teacher led question which identifies common mistakes. Written in green pen. The end of unit test is a gauge of knowledge acquired within that unit.</p>	<ul style="list-style-type: none"> Understanding electronic systems and how circuits work. 	<ul style="list-style-type: none"> English – Written explanations of work. Self/peer assessment. Maths- Using measurement with precision and with tolerance. Science – (Inputs/ processes and outputs)
Tote bag	To use the correct tools and equipment to manufacture a tote bag which uses Batik as decoration				
13-14 weeks 2, 100 minute lesson per fortnight. 4 weeks - 4 lessons	<p>Knowledge:</p> <ul style="list-style-type: none"> Batik Batik and culture <p>Design:</p> <ul style="list-style-type: none"> Design ideas in 2d <p>Make:</p> <ul style="list-style-type: none"> Sewing machines Hand sewing Batik <p>Evaluate:</p> <ul style="list-style-type: none"> Evaluation if ideas Peer evaluation 	<ul style="list-style-type: none"> Using Batik wax pots safely Using sewing machines including threading and adding thread to the bobbin. Dyeing fabric 	<p>This unit has 2 formal assessment areas:</p> <ul style="list-style-type: none"> A02e – Making skills A03f – Evaluation of ideas <p>Throughout the project, students will be given verbal feedback on their progress.</p> <p>At assessment points students will receive a highlighted success criteria. Green is achieved and red is next steps. Students will feedback from a teacher led question which identifies common mistakes. Written in green pen. The end of unit test is a gauge of knowledge acquired within that unit.</p>	<ul style="list-style-type: none"> Threading sewing machines correctly. Using quick pickups when mistakes are made Practising different stitch types. 	<ul style="list-style-type: none"> English – Written explanations of work. Self/peer assessment. Maths- Using measurement with precision and with tolerance. Geography - Culture

	CHALLENGE TASK: Colour mixing				
Layered garments	To use CAD/CAM fabric pieces to create a layered garment using specialist techniques				
	<ul style="list-style-type: none"> Knowledge: Vivienne Westwood Draping Stitching types Pleating Gathering CAD/ CAM Fasteners Design: Iterative design Make: Sewing machines CAM pieces and sewing together to make a garment. Evaluate: Product analysis Evaluation of designs to generate improvements CHALLENGE TASK: To add applique to the garment 	<ul style="list-style-type: none"> Laser cutting Using sewing machines including threading and adding thread to the bobbin. Hand stitching Attaching fasteners 	<ul style="list-style-type: none"> This unit has 3 formal assessment areas: <ul style="list-style-type: none"> A02a – Design and develop A02c – Make A03 – Evaluate Throughout the project, students will be given verbal feedback on their progress. At assessment points students will receive a highlighted success criteria. Green is achieved and red is next steps. Students will feedback from a teacher led question which identifies common mistakes. Written in green pen. The end of unit test is a gauge of knowledge acquired within that unit. 	<ul style="list-style-type: none"> Threading sewing machines correctly. Using quick unpicks when mistakes are made Practising different stitch types. Practice NEA pages Specialist textiles knowledge 	<ul style="list-style-type: none"> English – Written explanations of work. Self/peer assessment. Maths- Using measurement with precision and with tolerance.
Food	Students will be continuing to develop knowledge and understanding of food preparation and nutrition. Students will be given the opportunity to develop their knowledge from year 7, building on skills as well as learning new ones.				
13-14 weeks 2, 100 minute lesson per fortnight. 4 weeks - 4 lessons	Knowledge: <ul style="list-style-type: none"> Recap of year 7 learning Seasonality and food miles Food provenance Factors affecting food choice Sensory analysis Religion and food Bread Science Food labelling Bread experiment Design: <ul style="list-style-type: none"> Own menu based on a chosen culture (homework) Make: <ul style="list-style-type: none"> Bread rolls (assessed) Burgers Cookies Bread and butter pudding Evaluate: <ul style="list-style-type: none"> Sensory evaluation for each practical dish CHALLENGE TASK/S: Various attached to each point above	<ul style="list-style-type: none"> Fine motor skills Using ovens safely Using a blender safely Being safe in the classroom/Kitchen Use of Knives correctly. (Chopping skills) Re-cap of coloured chopping boards 	This unit has three formal assessment areas: <ul style="list-style-type: none"> ➤ A02e Making skills (Bread rolls only) ➤ A03f Evaluating using sensory analysis and suggesting where improvements to the dish is needed ➤ End of unit test on knowledge Throughout the project, students will be given verbal feedback on their progress. <p>At assessment points students will receive a highlighted success criteria. Green is achieved and red is next steps. Students will feedback from a teacher led question which identifies common mistakes. Written in green pen. The end of unit test is a gauge of knowledge acquired within that unit.</p>	<ul style="list-style-type: none"> Improved kitchen knowledge and understanding. Improved knowledge and understanding of practical skills/precision. Improved Knowledge, understanding and practice of Health and Safety. Improved Independence. 	<ul style="list-style-type: none"> Science - in food Geography - Seasonality of Food Maths - calculating recipes English -reading of text