

2019/ 2020	AUTUMN		SPRING		SUMMER	
	HT1	HT2	HT3	HT4	HT5	HT6
Y7	<p><b>Area of study</b> Food Core Skills &amp; Food Hygiene and Safety</p> <p><b>Key concepts</b> Hazards and Safety Bacteria and Equipment Healthy Diets Using the Cooker</p> <p><b>Assessment method</b> Written Assessment</p>	<p><b>Area of study</b> 2D CAD/CAM &amp; 2D CAD Tools</p> <p><b>Key concepts</b> CAD Files, Formats, Vectors Lines, Shapes, Text, Contours &amp; Images Reducing Colours &amp; Line Colours Exporting Files to Cut How to use Lasers Safely</p> <p><b>Assessment method</b> Reflection/Practice Tools Learned</p>	<p><b>Area of study</b> Core Engineering</p> <p><b>Key concepts</b> H+S in the Workshop/Tools/Machinery Surface area &amp; Preparing Templates Cutting Methods- Hand/Fret Saws Abrading- Sanding Machines/Files Assembly and Finishing</p> <p><b>Assessment method</b> Evaluation of Final Product</p>	<p><b>Area of study</b> Timbers</p> <p><b>Key concepts</b> Sources &amp; Origins Working with Timbers Commercial Manufacturing</p> <p><b>Assessment method</b> Written Assessment</p>	<p><b>Area of study</b> Research Based Design</p> <p><b>Key concepts</b> Research/Investigation Inspiration &amp; Target Market Feedback Electronic Systems/Soldering Manufacture Methods Product Testing</p> <p><b>Assessment method</b> Evaluation of Final Product</p>	<p><b>Area of study</b> Material Working Properties</p> <p><b>Key concepts</b> Papers &amp; Boards Timbers Metals &amp; Alloys Polymers Textiles</p> <p><b>Assessment method</b> Written Assessment</p>
Y8	<p><b>Area of study</b> Food Advanced Skills &amp; Balanced Eating</p> <p><b>Key concepts</b> H+S Recap &amp; GM Foods Equipment/Techniques &amp; Eatwell Plate Eating Healthily Cooker Usage and Following Methods</p> <p><b>Assessment method</b> Written Assessment</p>	<p><b>Area of study</b> 3D CAD &amp; 3D CAD Tools</p> <p><b>Key concepts</b> BSI, Parts, Planes, Sketches &amp; File Types Sketch Tools-Lines, Text, Contours Features- Extrude, Cut, Fillet, Chamfer Materials &amp; Environments Rendering</p> <p><b>Assessment method</b> Reflection/Practice Tools Learned</p>	<p><b>Area of study</b> <b>PROJECT TBC</b></p> <p><b>Key concepts</b> CNC Machinery File Types and Outputs</p> <p><b>Assessment method</b> X</p>	<p><b>Area of study</b> Designing Principles</p> <p><b>Key concepts</b> Investigation of Primary &amp; Secondary Data The Work of Other Designers The Work of Other Companies Design Strategies Communication of Design Ideas</p> <p><b>Assessment method</b> Written Assessment</p>	<p><b>Area of study</b> Innovative Material Use</p> <p><b>Key concepts</b> Research and Design Possibilities Communicating Ideas Effectively CAD Prototypes &amp; Card Prototyping Manufacturing Processes Assembling &amp; Finishes Evaluation and Reflection</p> <p><b>Assessment method</b> Evaluation of Final Product</p>	<p><b>Area of study</b> Common Specialist Principles</p> <p><b>Key concepts</b> Forces &amp; Stresses Improving Functionality Ecological and Social Footprint The 6 R's Scales of Production</p> <p><b>Assessment method</b> Written Assessment</p>
Y9	<p><b>Area of study</b> Advanced 3D CAD/CAM &amp; Orthographic Drawings</p> <p><b>Key concepts</b> Generating Parts for Assembly Advanced Rendering, Lighting Assemblies, Sheet Formats Projected Views &amp; Annotation</p> <p><b>Assessment method</b> Reflection/Practice Tools Learned</p>	<p><b>Area of study</b> Technical Drawings</p> <p><b>Key concepts</b> Effective Freehand Drawing Methods Perspective Drawings How to Add Depth Rendering Effectively Creating Complicated Shapes</p> <p><b>Assessment method</b> Evaluation of Final Outcomes</p>	<p><b>Area of study</b> Innovative Design Engineering</p> <p><b>Key concepts</b> Finding Existing Problems Effective Investigation Marketing/Branding/Packaging Designing, Development, Prototyping, Engineering</p> <p><b>Assessment method</b> RAG data sheet against set criteria</p>	<p><b>Area of study</b> Energy and Materials</p> <p><b>Key concepts</b> Energy Generation/Storage Modern/Smart Materials Composite Materials</p> <p><b>Assessment method</b> Written Assessment</p>	<p><b>Area of study</b> Reflect and Evaluate</p> <p><b>Key concepts</b> Evaluation Against Brief/Specification Product Testing Client/User Interview Feedback Potential Future Improvements Modifications</p> <p><b>Assessment method</b> RAG data sheet against set criteria</p>	<p><b>Area of study</b> Systems and Devices</p> <p><b>Key concepts</b> Systems Approach to Designing Electronic Systems Processing Mechanical Devices</p> <p><b>Assessment method</b> Written Assessment</p>
Y10	<p><b>Area of study</b> Unit 6-Identifying, Investigating Design Possibilities &amp; Design Brief/Specification</p> <p><b>Key concepts</b> Mindmap, Task Analysis, Target Market Profile, Primary Research, Product Evaluation, SMSC Impacts, Design Possibilities, Design Brief/Specification</p> <p><b>Assessment method</b> RAG data sheet against Specification</p>	<p><b>Area of study</b> Unit 1- New and Emerging Technologies Generating Design Ideas</p> <p><b>Key concepts</b> Industry &amp; Enterprise, Sustainability &amp; the Environment, People, Culture &amp; Society, Production Techniques/ Systems Informing Design decisions Effective Generation of Design Ideas</p> <p><b>Assessment method</b> RAG data sheet against Specification &amp;Written Assessment</p>	<p><b>Area of study</b> Unit 2- Energy, Materials, Systems &amp; Devices Generating/Developing Design Ideas</p> <p><b>Key concepts</b> Energy Generation/Storage, Modern Materials, Smart Materials, Composite Materials, Systems/Electronic Approach to Designing/Processing, Mechanical Devices Developmental Designs and Prototypes</p> <p><b>Assessment method</b> RAG data sheet against Specification &amp;Written Assessment</p>	<p><b>Area of study</b> Unit 3- Materials &amp; Working Properties Realising Design Ideas</p> <p><b>Key concepts</b> Papers and Boards, Timbers, Metals and Alloys, Polymers, Textiles Material Preparation Material Cutting (Including CAM) Enhancing Aesthetics</p> <p><b>Assessment method</b> RAG data sheet against Specification &amp;Written Assessment</p>	<p><b>Area of study</b> Unit 4- Common Specialist Principles Realising Design Ideas</p> <p><b>Key concepts</b> Forces and Stresses, Improving Functionality, Ecological and Social Footprint, The Six 6's, Scales of Production Effective Assembly of Parts Finishing Methods</p> <p><b>Assessment method</b> RAG data sheet against Specification &amp;Written Assessment</p>	<p><b>Area of study</b> Unit 5B- Timber Based Materials Analysing and Evaluating</p> <p><b>Key concepts</b> Sources and Origins, Working with Timbers, Commercial Manufacturing Evaluation against Brief/Specification Product Testing and Client/User Feedback Future Improvements</p> <p><b>Assessment method</b> RAG data sheet against Specification &amp;Written Assessment</p>
Y11	<p><b>Area of study</b> Unit 5D- Polymers Identifying, Investigating Design Possibilities &amp; Design Brief/Specification</p> <p><b>Key concepts</b> Mindmap, Task Analysis, Target Market Profile, Primary Research, Product Evaluation, SMSC Impacts, Design Possibilities, Design Brief/Specification</p> <p><b>Assessment method</b> RAG data sheet against Specification &amp;Written Assessment</p>	<p><b>Area of study</b> Generating Design Ideas Developing Design Ideas</p> <p><b>Key concepts</b> Ideation, Logo/Brand, Packaging Prototyping, Development, Prototyping Analysis, Ongoing Research, CAD Model, Materials Investigation</p> <p><b>Assessment method</b> RAG data sheet against Specification</p>	<p><b>Area of study</b> Realising Design Ideas</p> <p><b>Key concepts</b> Materials and Cutting Lists Manufacturing Diary Manufacturing Development</p> <p><b>Assessment method</b> RAG data sheet against Specification</p>	<p><b>Area of study</b> Realising Design Ideas Analysing and Evaluating</p> <p><b>Key concepts</b> Quality Control Tolerances Commercial Viability Assembly Finishing</p> <p><b>Assessment method</b> RAG data sheet against Specification</p>	<p><b>Area of study</b> Revisiting all theory Units</p> <p><b>Key concepts</b> Complete and reflect on past papers</p> <p><b>Assessment method</b> Self-reflection and teacher feedback on specific topic areas to develop fill gaps in knowledge</p>	

NOTES	AREAS OF STUDY	KEY CONCEPTS	ASSESSMENT METHOD

