

Curriculum Map –RM Key Stage 4

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
10 (2019/20)	<p>Assessment:</p> <p>Theory: End of topic test.</p> <p>NEA: Key assessment point. Working at grade.</p> <p>Theory topic - Section 1:</p> <ul style="list-style-type: none"> • Industry and Enterprise • Sustainability and the environment • People, Culture and society • Production techniques and systems • Informing design decisions <p>NEA skills: Introduction to course. Introduction to drawing skills Isometric drawing. Designing using a theme. Cutting wood joints, Box construction, Hole cutting and slot</p>	<p>Assessment:</p> <p>Theory: End of topic test.</p> <p>NEA: Key assessment point. Working at grade.</p> <p>Theory topic - Section 2:</p> <ul style="list-style-type: none"> • Energy generation • Modern materials • Smart Materials • Composite materials, and technical textiles • Electronics, systems processing • Mechanical devices <p>NEA skills:</p> <p>2D design and designing a clock face, Drilling and clamping, finishing surfaces.</p>	<p>Assessment:</p> <p>Theory: End of topic test.</p> <p>NEA: Key assessment point. Working at grade.</p> <p>Theory topic - Section 3:</p> <ul style="list-style-type: none"> • Papers and boards • Natural and manufactured timbers • Metals and alloys • Polymers • Textiles <p>NEA skills:</p> <p>RM practical skills and NEA assessment practice use of laser cutter and all machinery</p> <p>Keywords: analyse brief, context, problems,</p>	<p>Assessment:</p> <p>Theory: End of topic test.</p> <p>NEA: Key assessment point. Working at grade.</p> <p>Theory topic - Section 4 & 5:</p> <p>Forces and stresses</p> <ul style="list-style-type: none"> • Improving functionality • Ecological footprints • The 6 R's • Scales of production • Timber sources and origins • Working with timber based materials and fixings • Commercial manufacturing, surface 	<p>Assessment:</p> <p>Theory: End of topic test.</p> <p>NEA: Key assessment point. Working at grade.</p> <p>Theory topic - Section 6:</p> <ul style="list-style-type: none"> • Investigation, primary and secondary data • The work of other designers • The work of other companies • Design strategies and creativity • Prototype development. <p>NEA skills: RM practical skills and NEA assessment practice</p> <p>Keywords: detailed development, wide range</p>	<p>Assessment:</p> <p>Theory: End of topic test.</p> <p>NEA: Key assessment point. Working at grade.</p> <p>Theory topic - Section 7:</p> <ul style="list-style-type: none"> • Materials and components selection • Tolerances • Materials Management • Marking out – tools and accuracy • Specialist tools, equipment, techniques and finishes

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	<p>cutting, Gluing with different adhesives,</p> <p>Keywords: drilling, clamping, isometric, tri-square, health and safety, dovetail, joints, cutting, equipment, industry, enterprise, sustainability, culture, production techniques, decisions.</p>	<p>Keywords: adhesives, accuracy, wax, oils, independence, energy generation, energy storage, modern materials, smart materials, composite, systems & electronic approach to designing, mechanical devices.</p>	<p>opportunities, client investigation, society, social effects, economic, justification, laser cutter, extraction, design programme, engraving, pillar drill, sanding disc, drill bit, papers and boards, natural, manufactured timbers, metals, alloys, polymers, textiles, thermoplastic, thermosetting.</p>	<p>treatments, and finishes</p> <p>NEA skills:</p> <p>RM practical skills and NEA assessment practice</p> <p>Keywords: brief, specification, needs, wants, client, reflection, context, Design fixation, innovative, ferrous, non-ferrous, casting, drilling, riveting, dip coating, mould , , input, output, experimentation, developing ideas, forces and stresses, functionality, ecological, social footprint, six r's, scales of production, sources and origins, working, commercial manufacturing, surface treatments, finishes.</p>	<p>of 2D/3D techniques, prototype. modelling, methods, testing design ideas, appropriate materials/components, working properties, detailed manufacturing specification, justification, investigation, primary, secondary, data, strategies, prototype, developments, refining, testing ideas.</p>	<p>NEA skills:</p> <p>Start on official Non-examination assessment 1st June contexts are released.</p> <p>Keywords: Client, context, problems, opportunities, explore, needs, wants, economic, social, effects, investigate, brief, specification, justification, focused, relevant, components, tolerances, marking out, nesting, tools, equipment, surface treatment, finishes.</p>
<p>Homework to include: use of CGP revision guide, completion of exam questions, research NEA tasks.</p>						