

Area of study	Your child will ... (Knowledge)	Your child will be able to... (Skills)
Rotations		
Food: Health, Safety and Hygiene	<ul style="list-style-type: none"> • Explain how bacteria spreads • Describe how to control bacteria levels and why it is important (Personal hygiene, the food prep environment, temperature control) • Name the difference between food origins (caught, reared, processed) 	<ul style="list-style-type: none"> • Use tools and equipment (Knife, hob, grill and oven) • Follow health and safety (Risk assessments, PPE) • Make a range of dishes (Fruit Salad, French Bread Pizza, Bread, Pasta Salad, Chicken Goujons, Pithivier)
Resistant Materials: Wooden Storage Tray	<ul style="list-style-type: none"> • Name the properties of wood • Describe the terms Softwood, Hardwood and Manufactured Boards • Describe the methods of manufacture (Rabbit Joint, Corner Halving Joint, Panel pins) • Explain environmental impact of developing and manufacturing new products (Sustainability, The 6 R's) 	<ul style="list-style-type: none"> • Use tools and equipment (Steel Rule, Try-Square, Marking Gauge, Tenon Saw, Coping Saw, Multi Purpose Drill) • Follow health and safety (Risk assessments, PPE) • Accurately Mark out • Accurately Cut • Make a Wooden Storage Tray
Design: CAD Design	<ul style="list-style-type: none"> • Explain the design process, including the use of templates (Design Brief, Specification, Design Development, Templates) • Describe different production methods (vacuum forming, blow moulding) • Name the properties of plastic • Describe the terms Thermoplastic and Thermo-setting plastic • Describe the design features of Packaging 	<ul style="list-style-type: none"> • Sketch a range of design ideas with detailed annotation • Produce a final design using CAD software • Make a Plastic Chocolate Mould • Develop a packaging design

Area of study

Your child will ... (Knowledge)

Your child will be able to... (Skills)

Rotations

<p>Food: International Food</p>	<ul style="list-style-type: none"> • Describe what type 2 diabetes is and the key risk factors for developing it (lifestyle, diet, culture, medical) • Explain the impact of food miles, food waste, seasonality and provenance • Know how to plan effectively to complete a practical outcome independently • Describe how yeast works and what it requires to become active 	<ul style="list-style-type: none"> • Use tools and equipment (Develop knife, hob and oven) • Use intermediate skills (Kneading, Sauté, Caramelising, Working with high-risk foods and hot oil) • Follow health and safety (Risk assessments, PPE) • Make a range of dishes (chips and dips, apple crumble, Ultimate Garlic Bread, Stir Fry, Fresh Bread Pizza)
<p>Resistant Materials: Metal Copper Bracket</p>	<ul style="list-style-type: none"> • Describe the terms Ferrous, Non-Ferrous and Alloy • Name the properties of metal • Describe the methods of manufacture (marking out, cutting, drilling, bending, forming, finishing and assembling) • Describe the terms Structure, stability and function • Explain the design process (design ideas, phototyping, manufacturing) 	<ul style="list-style-type: none"> • Make a template • Make a prototype • Use tools and equipment (Engineer's square, tin snips, hand file, engineer's vice, scriber, centre punch, battery drill, screwdriver) • Follow health and safety (Risk assessments, PPE) • Make a bracket with copper and pinewood
<p>Textiles: Cushion Cover</p>	<ul style="list-style-type: none"> • Explain where fabric comes from (origins) • Describe the terms Smart Materials, Sustainability • Name the parts of a sewing machine • Describe a range of Decorative Techniques (Hand Sewing, Tie Dye, Machine Sewing, Printing) 	<ul style="list-style-type: none"> • Use research to sketch design ideas • Use tools and equipment (Needle, Scissors, Sewing Machine) • Follow health and safety (Risk assessments, PPE) • Make a Fabric Cushion Cover

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Food: International Food	<ul style="list-style-type: none"> • Explain the role of the essential nutrients and the eatwell guide in a balanced diet (The essential nutrients, Macro and micro nutrients, The Eatwell guide) • Know some of the key attributes of fine dining plating (colour, portion control, position, organoleptic) 	<ul style="list-style-type: none"> • Use tools and equipment (Revise and develop knife, hob and oven, small electrical equipment) • Use intermediate skills (Kneading, Piping, Whisking, Making a complex sauce) • Follow health and safety (Risk assessments, PPE) • Make a range of dishes (Spring Rolls, Fresh Pasta, Risotto, Swiss Roll, Curry, fruit pie)
Engineering Manufacture : CAD/CAM and Electronics - Amplifier	<ul style="list-style-type: none"> • Describe how a simple circuit works • Explain the components in the circuit • Describe the term composite material • Explain how the Laser Cutter works • Explain the benefits of CNC production • Know how to plan effectively to complete a practical outcome on CNC (Production Plan) 	<ul style="list-style-type: none"> • Use soldering equipment to make a circuit (Soldering iron, wire strippers, wire cutters, pliers) • Revise and Develop CAD skills (casing design, orthographic drawing) • Assemble component parts • Make an Amplifier
Engineering Design: Product Design - Torch	<ul style="list-style-type: none"> • Name the stages of the design cycle (Identify, Design, Optimise, Validate) • Describe the terms anthropometric and ergonomic • Demonstrate how to communicate a design (Drawing techniques, Labelling, Annotation) • Know how to plan and develop a prototype 	<ul style="list-style-type: none"> • Develop design ideas using 2D/3D drawing techniques (isometric/oblique/1 & 2 point perspective) • Use labelling and annotation to communicate design ideas • Use CAD to produce a design proposal (Google sketchUp) • Follow health and safety (Risk assessments, PPE) • Use tools and equipment (Craft Knife, Hand file, Rasp, needle Files)