

## KS4 Curriculum Overview DIY skills

### **ENRICHMENT – DIY Skills - Year 1**

TERM 1 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p style="text-align: center;"><b><u>Health and Safety</u></b></p> <ul style="list-style-type: none"> <li>• Correct PPE</li> <li>• Workshop rules</li> <li>• Machinery</li> <li>• Handheld tools</li> </ul>	<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• Communication</li> <li>• Active listening</li> <li>• Mastery of tool use</li> <li>• Problem solving</li> <li>• Critical thinking</li> <li>• Adaptability</li> <li>• Measuring</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• PE</li> <li>• Science</li> <li>• Maths</li> </ul>	<p><b>BV:</b></p> <p><b>Rule of Law</b> Students will understand the importance of following health and safety regulations.</p> <p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Health and safety officer</li> <li>• Carpenter</li> <li>• Engineer</li> <li>• Painter and Decorator</li> </ul>
TERM 2 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p style="text-align: center;"><b><u>Project 1: Birdhouse</u></b></p> <ul style="list-style-type: none"> <li>• Planning the project</li> <li>• Researching chosen birdhouse design</li> <li>• Measuring and ordering materials</li> <li>• Developing machinery skills</li> </ul>	<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• Practical</li> <li>• Woodwork</li> <li>• Joinery</li> <li>• Problem solving</li> <li>• Measuring</li> <li>• Critical thinking</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• Maths</li> </ul>	<p><b>BV:</b></p> <p><b>Individual Liberty</b> Individual creativity and choice when designing their birdhouse. Having freedom and autonomy when designing and expressing their personal preferences.</p> <p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Carpenter</li> <li>• Engineer</li> <li>• Painter and Decorator</li> </ul>
TERM 3 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p style="text-align: center;"><b><u>Project 1: Birdhouse</u></b></p> <ul style="list-style-type: none"> <li>• Measuring and cutting materials</li> <li>• Being independent on workshop machinery</li> <li>• Building the birdhouse using techniques such as: drilling, cutting, sanding, dowel joints, butt joints and dove joints</li> </ul>	<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• Practical</li> <li>• Woodwork</li> <li>• Joinery</li> <li>• Problem solving</li> <li>• Measuring</li> <li>• Critical thinking</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• Maths</li> </ul>	<p><b>BV:</b></p> <p><b>Mutual respect</b> Creating and placing the birdhouses within community areas helps promote the responsibility for wellbeing and wildlife for the common good.</p> <p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Carpenter</li> <li>• Engineer</li> <li>• Painter and Decorator</li> </ul>
TERM 4 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p style="text-align: center;"><b><u>Project 1: Birdhouse</u></b></p> <ul style="list-style-type: none"> <li>• Planning final decoration designs</li> <li>• Painting and varnishing final products</li> <li>• Evaluating final designs and final pictures for display</li> </ul>	<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Practical</li> <li>• Woodwork</li> <li>• Joinery</li> <li>• Problem solving</li> <li>• Measuring</li> <li>• Critical thinking</li> <li>• Evaluation</li> <li>• Extended Writing</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• Maths</li> </ul>	<p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Carpenter</li> <li>• Engineer</li> <li>• Painter and Decorator</li> </ul>

TERM 5 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p style="text-align: center;"><b><u>Project 2: Sweet Dispenser</u></b></p> <ul style="list-style-type: none"> <li>• Planning the project</li> <li>• Researching chosen sweet dispenser design</li> <li>• Measuring and ordering materials</li> <li>• Design the product using CAD and 2D design</li> <li>• Developing specific machinery skills and handheld tools</li> </ul>	<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• Practical</li> <li>• Research</li> <li>• Joinery</li> <li>• Problem solving</li> <li>• Measuring</li> <li>• Critical thinking</li> <li>• Design</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• Maths</li> <li>• Textiles</li> <li>• Art</li> <li>• Product Design</li> </ul>	<p><b>BV:</b>  <b>Individual Liberty</b>  Students have freedom, choice and creativity when designing their sweet dispenser. Deciding on the design, materials and functionality.</p> <p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Carpenter</li> <li>• Engineer</li> <li>• Painter and Decorator</li> </ul>
TERM 6 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p style="text-align: center;"><b><u>Project 2: Sweet Dispenser</u></b></p> <ul style="list-style-type: none"> <li>• Measuring and cutting materials</li> <li>• Being independent on workshop machinery and hand tools</li> <li>• Building the sweet dispenser using techniques such as: drilling, cutting, sanding, chiselling and butt joints</li> </ul>	<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• Practical</li> <li>• Research</li> <li>• Joinery</li> <li>• Problem solving</li> <li>• Measuring</li> <li>• Critical thinking</li> <li>• Design</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• Maths</li> <li>• Textiles</li> <li>• Art</li> <li>• Product Design</li> </ul>	<p><b>BV:</b>  <b>Mutual Respect</b>  Students will consider the different individual preferences, dietary restriction and cultural considerations when choosing the sweets for their sweet dispenser.</p> <p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Carpenter</li> <li>• Engineer</li> <li>• Painter and Decorator</li> </ul>

## KS4 Curriculum Overview DIY skills

### **ENRICHMENT – DIY Skills - Year 2**

TERM 1 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p><b>Project 2: Sweet Dispenser</b></p> <ul style="list-style-type: none"> <li>• Planning final decoration designs</li> <li>• Painting and varnishing final products</li> <li>• Evaluating final designs and final pictures for display</li> </ul>	<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• Practical</li> <li>• Research</li> <li>• Joinery</li> <li>• Problem solving</li> <li>• Measuring</li> <li>• Critical thinking</li> <li>• Design</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• Maths</li> <li>• Textiles</li> <li>• Art</li> <li>• Product Design</li> </ul>	<p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Carpenter</li> <li>• Engineer</li> <li>• Painter and Decorator</li> </ul>
TERM 2 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p><b>Project 3: Night Light</b></p> <ul style="list-style-type: none"> <li>• Planning the project</li> <li>• Researching chosen nightlight design</li> <li>• Measuring and ordering materials</li> <li>• Developing machinery skills and handheld tools</li> <li>• Understanding resin ratio</li> <li>• Understanding circuit's for lighting and usb</li> </ul>	<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• Practical</li> <li>• Research</li> <li>• Problem solving</li> <li>• Measuring</li> <li>• Critical thinking</li> <li>• Design</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• Maths</li> <li>• Textiles</li> <li>• Art</li> <li>• Product Design</li> <li>• Science</li> </ul>	<p><b>BV:</b> <b>Rule of law</b> Students will follow the safety standards and product regulations of using resin and the environmental impacts of using specific materials.</p> <p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Carpenter</li> <li>• Engineer</li> <li>• Painter and Decorator</li> <li>• Electrician</li> <li>• Product designer</li> </ul>
TERM 3 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p><b>Project 3: Night Light</b></p> <ul style="list-style-type: none"> <li>• Measuring and cutting materials</li> <li>• Shaping and designing a square piece of pine wood into a moon scape</li> <li>• Being independent on workshop machinery and handheld tools</li> <li>• Measuring and mixing resin for correct ratio</li> <li>• Designing on CAD for 3D printer.</li> <li>• Building the night light using techniques such as: drilling, cutting, sanding, filing, mixing resin, creating circuit.</li> </ul>	<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• Practical</li> <li>• Research</li> <li>• Problem solving</li> <li>• Measuring</li> <li>• Critical thinking</li> <li>• Design</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• Maths</li> <li>• Textiles</li> <li>• Art</li> <li>• Product Design</li> <li>• Science</li> </ul>	<p><b>BV:</b> <b>Mutual respect</b> Sharing and displaying the resin night light in communal spaces involves showing mutual respect for diverse tastes and preferences.</p> <p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Carpenter</li> <li>• Engineer</li> <li>• Painter and Decorator</li> <li>• Electrician</li> <li>• Product designer</li> </ul>

TERM 4 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p><b>Project 3: Night Light</b></p> <ul style="list-style-type: none"> <li>• Planning final decoration designs</li> <li>• Filing, sanding and varnishing final products</li> <li>• Completing the electrical circuit to light the product</li> <li>• Evaluating final designs and final pictures for display</li> </ul>	<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• Evaluation</li> <li>• Extended writing</li> <li>• Practical</li> <li>• Measuring</li> <li>• Critical thinking</li> <li>• Design</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• Maths</li> <li>• Textiles</li> <li>• Art</li> <li>• Product Design</li> </ul>	<p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Carpenter</li> <li>• Engineer</li> <li>• Painter and Decorator</li> <li>• Electrician</li> <li>• Product designer</li> </ul>
TERM 5 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p><b>Project 4: RC Plastics</b></p> <ul style="list-style-type: none"> <li>• Planning the project</li> <li>• Researching chosen RC design</li> <li>• Measuring and ordering materials</li> <li>• Designing using 2D Design, Google Sketch-up</li> </ul>	<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• Research</li> <li>• Problem solving</li> <li>• Measuring</li> <li>• Critical thinking</li> <li>• Design</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• Maths</li> <li>• Textiles</li> <li>• Art</li> <li>• Product Design</li> </ul>	<p><b>BV:</b> <b>Individual Liberty</b> Students have individual creativity and personal choice when designing the colours, shape and design of their car shell.</p> <p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Carpenter</li> <li>• Engineer</li> <li>• Product designer</li> </ul>
TERM 6 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
<p><b>Project 4: RC Plastics</b></p> <ul style="list-style-type: none"> <li>• Completing final decoration designs</li> <li>• Filing, cutting and sanding foam design into shape</li> <li>• Completing the electrical circuit to light the product</li> <li>• Evaluating final designs and final pictures for display</li> </ul>	<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• Research</li> <li>• Problem solving</li> <li>• Measuring</li> <li>• Critical thinking</li> <li>• Design</li> </ul> <p><b>Subject links:</b></p> <ul style="list-style-type: none"> <li>• Maths</li> <li>• Textiles</li> <li>• Art</li> <li>• Product Design</li> </ul>	<p><b>BV:</b> <b>Rule of Law</b> Students will follow the regulation and standards of using materials to design an RC shell.</p> <p><b>Career Links:</b></p> <ul style="list-style-type: none"> <li>• Carpenter</li> <li>• Engineer</li> <li>• Product designer</li> </ul>