

# RESISTANT MATERIALS

# YEAR 11

## AUTUMN 1

<p><b>NEA Research</b></p> <p>Students research their context by conducting a user interview, completing a site visit, studying existing products, disassembling a product and analysing it and any other relevant research for their chosen problem.</p>	<p><b>NEA Ideas</b></p> <p>Students generate a range of ideas, both hand drawn and through modelling and analyse how their ideas meet the needs of users.</p>	<p><b>Ongoing theory and exam questions</b></p> <p>Students will revisit the theory studied in year 10 and answer exam style questions to embed the knowledge.</p>	<p><b>Prior Learning</b></p> <p>NEA is designed to demonstrate all learning to date from iteration projects in 7 (Innovation), 8 (Lighting), 9 (Garden) and 10 are specifically designed to build up to this.</p>
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## AUTUMN 2

<p><b>NEA Development</b></p> <p>Students use a range of techniques to move their initial ideas on to a final solution, through model making, trials and tests in different materials and processes and by interviewing the user about their ideas and how they can be improved.</p>	<p><b>NEA Planning</b></p> <p>Students plan the materials they need and the processes they will use, including a time plan and risk assessment for the making task.</p>	<p><b>Ongoing theory and exam questions</b></p> <p>Students will revisit the theory studied in year 10 and answer exam style questions to embed the knowledge.</p>	<p><b>Prior Learning</b></p> <p>The exam is designed to test students on their knowledge and all theory throughout years 7 – 11 is building for this exam.</p>
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## SPRING 1

<p><b>NEA Making</b></p> <p>Students use a range of materials and techniques to manufacture their product.</p>	<p><b>NEA Evaluating</b></p> <p>Students evaluate their work against their intentions, get user feedback and test the product in a real situation.</p>	<p><b>Ongoing theory and exam questions</b></p> <p>Students will revisit the theory studied in year 10 and answer exam style questions to embed the knowledge.</p>	<p><b>Prior Learning</b></p> <p>All making completed throughout the school build the skills required to make a quality product from wood, metals, plastics, fabric and card.</p>
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## SPRING 2

<p><b>NEA Evaluating,</b></p> <p>Students evaluate their work against their intentions, get user feedback and test the product in a real situation.</p>	<p><b>Ongoing theory and exam questions.</b></p> <p>Students will revisit the theory studied in year 10 and answer exam style questions to embed the knowledge.</p>	<p><b>Prior Learning</b></p> <p>Evaluation skills are taught throughout the subject but particularly on the Garden project in year 10.</p>
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## SUMMER 1

<p><b>Prep for exam,</b></p> <p>Ongoing testing will show any knowledge gaps or techniques that need revisiting, also this is the time to reinforce some to the more difficult topics to ensure they are fresh in the students' minds.</p>	<p><b>Prior Learning</b></p> <p>Revision reinforces knowledge covered throughout all areas of technology across all year groups.</p>
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## CAREERS LINKS

Throughout this course we talk to students about future pathways. This course can lead to vocational apprenticeships in a range of areas as well as on to A 'level Product design and then a multitude of Design, Engineering and Architecture type qualifications. This course provides pupils with a portfolio of work that can be taken to any interview and shows a range of transferrable skills into almost any career pathway.

## CHARACTER LINKS

Performance virtues of determination, motivation and perseverance are harnessed when completing long-term projects and assignments that are ongoing. Intellectual virtues of critical thinking, judgement and reflection are fostered when students are critiquing design ideas and presentation skills.

## KEY ASSESSMENT DATES

Practice questions are ongoing throughout the year but formal assessments will take place during whole school assessment weeks.