

Current Curriculum Plan

Faculty: Create

Dept: Resistant Materials

	Week 1	Week 2	Week 3	Week 4	Week HT 5	Week 6	Week 7	Week 8	Week 9
<p>Year 7</p> <p>Graphical communication skills - Sketching, Presentation Drawings and Rendering</p> <p>(1/2 Year rotation - 9 fortnightly lessons)</p>	<p>Single Point Perspective</p> <p>-What is perspective? horizon lines, vanishing points and construction lines. - How the viewing point of the observer affects the outcome.</p> <p>- Floating blocks – graphical task.</p>	<p>Single Point Perspective</p> <p>- Thick and thin line technique. Simple light / medium/ dark rendering to enhance the 3D effect.</p> <p>- Outlining images to make them stand out on the paper.</p>	<p>Two Point Perspective</p> <p>- The similarities and differences between single and two point perspective.</p> <p>- Floating blocks graphical task. (Comparison of realism as compared to same task in single point perspective).</p>	<p>Two point perspective</p> <p>- Thick and thin line technique. Simple light / medium / dark rendering to enhance the 3D effect.</p> <p>- Outlining images to make them stand out on the paper.</p>	<p>Perspective Drawing - Basic Geometry.</p> <p>- Crating. - Drawing curves and circles. - Identifying centre points. - Equal division of faces.</p> <p>(Comparison of the similarities of 2D geometry to 3D geometry)</p>	<p>Perspective Drawing – Multiple Crates.</p> <p>The use of multiple crates in perspective to create more complex drawings.</p>	<p>Sketching.</p> <p>Using isometric and perspective drawing techniques to produce quick freehand sketches when communicating design ideas.</p>	<p>Rendering</p> <p>Shading techniques utilising tone and texture applied to a range of 2D shapes to make them appear 3D.</p>	<p>Rendering</p> <p>A range of techniques to be practiced and applied to drawings to make them appear that they are made of different materials (Wood, metal, plastic, glass, concrete, fabric etc).</p>
<p>Year 8</p> <p>Graphical communication skills - Sketching, Presentation Drawings and Rendering</p> <p>(1/2 Year rotation - 9 fortnightly lessons)</p>	<p>Single Point Perspective</p> <p>-What is perspective? horizon lines, vanishing points and construction lines. - How the viewing point of the observer affects the outcome.</p> <p>- Floating blocks – graphical task.</p>	<p>Single Point Perspective</p> <p>- Thick and thin line technique. Simple light / medium/ dark rendering to enhance the 3D effect.</p> <p>- Outlining images to make them stand out on the paper.</p>	<p>Two Point Perspective</p> <p>- The similarities and differences between single and two point perspective.</p> <p>- Floating blocks graphical task. (Comparison of realism as compared to same task in single point perspective).</p>	<p>Two point perspective</p> <p>- Thick and thin line technique. Simple light / medium / dark rendering to enhance the 3D effect.</p> <p>- Outlining images to make them stand out on the paper.</p>	<p>Perspective Drawing - Basic Geometry.</p> <p>- Crating. - Drawing curves and circles. - Identifying centre points. - Equal division of faces.</p> <p>(Comparison of the similarities of 2D geometry to 3D geometry)</p>	<p>Perspective Drawing – multiple crates.</p> <p>The use of multiple crates in perspective to create more complex drawings.</p>	<p>Sketching.</p> <p>Using isometric and perspective drawing techniques to produce quick freehand sketches when communicating design ideas.</p>	<p>Rendering</p> <p>Shading techniques utilising tone and texture applied to a range of 2D shapes to make them appear 3D.</p>	<p>Rendering</p> <p>A range of techniques to be practiced and applied to drawings to make them appear that they are made of different materials (Wood, metal, plastic, glass, concrete, fabric etc).</p>

	HT 1	HT 2	HT 3	HT 4	HT 5	HT 6
<p>Year 9</p> <p>AQA GCSE Design & Technology 9-1</p>	<p>THEORY</p> <ul style="list-style-type: none"> - New and emerging technologies - Energy, materials, systems and devices <p>PRACTICAL</p> <ul style="list-style-type: none"> - Focussed practical task – one • (AO4) Demonstrate and apply knowledge and understanding of: <ul style="list-style-type: none"> - Industry and enterprise. - Sustainability and the environment. - Production techniques and systems. - Informing design decisions. - Energy generation and storage. - Modern and smart materials - Composite materials. - Electronic systems. - Mechanical devices <p>Skills covered (Assessment Objectives)</p> <ul style="list-style-type: none"> - Identifying, investigating and outlining design possibilities to address needs and wants (AO1) - Designing and making prototypes that are fit for purpose (AO2) - Analysing and evaluating design decisions and outcomes. (AO3) 		<p>THEORY</p> <ul style="list-style-type: none"> - Energy, materials, systems and devices - Materials and their working properties <p>PRACTICAL</p> <ul style="list-style-type: none"> - Focussed practical task – two • (AO4) Demonstrate and apply knowledge and understanding of: <ul style="list-style-type: none"> - Energy generation and storage. - Modern and smart materials - Composite materials. - Electronic systems. - Mechanical devices - Papers and boards. - Natural and manufactured timbers - Metals and alloys - Polymers <p>Skills covered (Assessment Objectives)</p> <ul style="list-style-type: none"> - Identifying, investigating and outlining design possibilities to address needs and wants (AO1) - Designing and making prototypes that are fit for purpose (AO2) - Analysing and evaluating design decisions and outcomes. (AO3) 		<p>THEORY</p> <ul style="list-style-type: none"> - Common specialist technical principles - Papers and boards <p>PRACTICAL</p> <ul style="list-style-type: none"> - Focussed practical task – three • (AO4) Demonstrate and apply knowledge and understanding of: <ul style="list-style-type: none"> - Forces and stresses on materials. - Improving functionality. - Ecological and social footprint. - The six R's - Scale of production. - Working with papers and boards - Sources and origins - Commercial manufacturing, surface treatments and finishes. <p>Skills covered (Assessment Objectives)</p> <ul style="list-style-type: none"> - Identifying, investigating and outlining design possibilities to address needs and wants (AO1) - Designing and making prototypes that are fit for purpose (AO2) - Analysing and evaluating design decisions and outcomes. (AO3) 	
<p>Year 10</p> <p>AQA GCSE Design & Technology 9-1</p>	<p>THEORY</p> <ul style="list-style-type: none"> - Timber based materials - Metal based materials - Polymers <p>PRACTICAL</p> <ul style="list-style-type: none"> - Focussed practical task – four • (AO4) Demonstrate and apply knowledge and understanding of: <ul style="list-style-type: none"> - Working with timber based materials - Working with metal based materials and fixings - Working with polymer based materials and fixings - Sources, origins and properties. - Commercial manufacturing, surface treatments and finishes <p>Skills covered (Assessment Objectives)</p> <ul style="list-style-type: none"> - Identifying, investigating and outlining design possibilities to address needs and wants (AO1) - Designing and making prototypes that are fit for purpose (AO2) - Analysing and evaluating design decisions and outcomes. (AO3) 		<p>THEORY</p> <ul style="list-style-type: none"> - Polymers - Textile based materials - Electronic systems <p>PRACTICAL</p> <ul style="list-style-type: none"> - Focussed practical task – five • (AO4) Demonstrate and apply knowledge and understanding of: <ul style="list-style-type: none"> - Working with polymer based materials and fixings - Sources, origins and properties. - Commercial manufacturing, surface treatments and finishes - Working with electronic components - Selection of materials and components - Commercial manufacturing and quality control. - Personal response to design task <p>Skills covered (Assessment Objectives)</p> <ul style="list-style-type: none"> - Identifying, investigating and outlining design possibilities to address needs and wants (AO1) - Designing and making prototypes that are fit for purpose (AO2) - Analysing and evaluating design decisions and outcomes. (AO3) 		<p>THEORY</p> <ul style="list-style-type: none"> - Designing principles - Making Principles <p>PRACTICAL</p> <ul style="list-style-type: none"> - Focussed practical task – six • (AO4) Demonstrate and apply knowledge and understanding of: <ul style="list-style-type: none"> - Investigation, primary and secondary data. - The work of others - Design Strategies - Communication of design ideas and prototype development - Selection of materials / components - Material management / marking out - Specialist tools, equipment - Surface treatments and finishes - Personal response to design task <p>Skills covered (Assessment Objectives)</p> <ul style="list-style-type: none"> - Identifying, investigating and outlining design possibilities to address needs and wants (AO1) - Designing and making prototypes that are fit for purpose (AO2) - Analysing and evaluating design decisions and outcomes. (AO3) 	

<p>Year 11</p> <p>AQA GCSE Design & Technology 9-1</p>	<p>NEA – Substantial Design and Make Task.</p> <p>1) Identifying and investigating design possibilities. 2) Producing a design brief and specification. 3) Generating design ideas.</p>	<p>NEA – Substantial Design and Make Task.</p> <p>1) Generating design ideas. 2) Developing design ideas. 3) Realising design ideas.</p>	<p>NEA – Substantial Design and Make Task.</p> <p>1) Realising design ideas.</p>	<p>NEA – Substantial Design and Make Task.</p> <p>EXAM PREPARATION</p> <p>1) Realising design ideas. 2) Analysing and evaluating.</p>	<p>EXAM PREPARATION</p>	<p>EXAM</p>
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