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Ormiston Academies Trust
ACHIEVING MORE TOGETHER

2023-
2024

Design Technology Curriculum Map



Brownhills Ormiston Academy Design Technology Curriculum map



Year 7 Design Technology

Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
<p>Model boat</p> <ul style="list-style-type: none"> Identifying the categories of timber, their properties and examples. Analysing how to read a simple technical drawing. Create a model boat using a range of tools and processes. Understand the term tolerance and how to check a product is within tolerance throughout the making process. Use a range of hand tools to produce a wooden product. <p>Key concepts:</p>	<p>Model boat</p> <ul style="list-style-type: none"> Identifying the categories of timber, their properties and examples. Analysing how to read a simple technical drawing. Create a model boat using a range of tools and processes. Understand the term tolerance and how to check a product is within tolerance throughout the making process. Use a range of hand tools to produce a wooden product. <p>Key concepts:</p>	<p>Biomimicry</p> <ul style="list-style-type: none"> Exploring biomimicry and real-life examples. Exploring a brief and specification and how they guide their work. How to best sketch/design freehand. Presenting ideas in 2D (orthographic) and 3D (isometric). The difference between a technical drawing and freehand sketching. <p>Key concepts: NC content I1, I2, D1, D2, E1, E3</p>	<p>Biomimicry</p> <ul style="list-style-type: none"> Exploring biomimicry and real-life examples. Exploring a brief and specification and how they guide their work. How to best sketch/design freehand. Presenting ideas in 2D (orthographic) and 3D (isometric). The difference between a technical drawing and freehand sketching. <p>Key concepts:</p>	<p>Introduction to the kitchen</p> <ul style="list-style-type: none"> Understanding the Eatwell Guide and different food groups. Exploring nutrients and eating for health. The 8 healthy eating tips. Measuring ingredients in ml, l, g and kg. Show the difference between a tablespoon and teaspoon. Using cooker controls Independently. Demonstrate basic food safety measures. <p>Key concepts:</p>	<p>Introduction to the kitchen</p> <ul style="list-style-type: none"> Understanding the Eatwell Guide and different food groups. Exploring nutrients and eating for health. The 8 healthy eating tips. Measuring ingredients in ml, l, g and kg. Show the difference between a tablespoon and teaspoon. Using cooker controls Independently. Demonstrate basic food safety measures. <p>Key concepts:</p>

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Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
NC content M1, T1, T2	NC content M1, T1, T2		NC content I1, I2, D1, D2, E1, E3	NC content C1, C2, C3, C4	NC content C1, C2, C3, C4

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Year 8 Design Technology

Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
<p>Bughouse</p> <ul style="list-style-type: none"> Measuring, marking, cutting timber with accuracy. Using woodwork tools such as disc sander, chisel, marking gauge, try square and tenon saw. . Material properties, including why a material is more suitable in comparison to others. Exploring and demonstrating construction methods for timber housing joint, lap joint. <p>Key concepts:</p>	<p>Bughouse</p> <ul style="list-style-type: none"> Measuring, marking, cutting timber with accuracy. Using woodwork tools such as disc sander, chisel, marking gauge, try square and tenon saw. . Material properties, including why a material is more suitable in comparison to others. Exploring and demonstrating construction methods for timber housing joint, lap joint. <p>Key concepts:</p>	<p>Cultural Jewellery</p> <ul style="list-style-type: none"> Exploring ergonomic and anthropometrics Analysing a product to considers a broad range of features. Develop a range of varied and creative designs which respond to a brief, specification, and link to research. Using annotations to enhance the communication of ideas. Exploring material properties, CAD.CAM and construction methods. 	<p>Cultural Jewellery</p> <ul style="list-style-type: none"> Exploring ergonomic and anthropometrics Analysing a product to considers a broad range of features. Develop a range of varied and creative designs which respond to a brief, specification, and link to research. Using annotations to enhance the communication of ideas. Exploring material properties, CAD.CAM and construction methods. 	<p>Food from around the world</p> <ul style="list-style-type: none"> Macronutrients (carbohydrates, fats and protein) and their role in our diets. Health risks associated with unhealthy eating habits. Suggesting alternative ingredients when modifying recipes. Exploring and cooking dishes from a range of cultures. Demonstrating growing confidence with kitchen equipment and cooking techniques. 	<p>Food from around the world</p> <ul style="list-style-type: none"> Macronutrients (carbohydrates, fats and protein) and their role in our diets. Health risks associated with unhealthy eating habits. Suggesting alternative ingredients when modifying recipes. Exploring and cooking dishes from a range of cultures. Demonstrating growing confidence with kitchen equipment and cooking techniques.

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<p>NC concepts I2, M1, M2, T1</p>	<p>NC concepts I2, M1, M2, T1</p>	<p>Key concepts: NC content I1, I2, D1, D2, E1, E3, E4, T1, M1</p>	<p>Key concepts: NC content I1, I2, D1, D2, E1, E3, E4, T1, M1</p>	<ul style="list-style-type: none"> • Measure liquids and dry ingredients with independence and some accuracy. <p>Key concepts: NC content C1, C2, C3, C4</p>	<ul style="list-style-type: none"> • Measure liquids and dry ingredients with independence and some accuracy. <p>Key concepts: NC content C1, C2, C3, C4</p>
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Year 9 Design Technology

Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
<p>Aluminals</p> <ul style="list-style-type: none"> • Designer influence: Eames. • Card modelling using 2D material and shaping into a 3D structure. • Iteration with the focus on design development and design being a continual process by gathering feedback from others. • Planning manufacturing stages of a product including safety and quality considerations. <p>Key concepts: NC content: I1, I2, I3, D1, D2, E1, E3, T1</p>	<p>Aluminals</p> <ul style="list-style-type: none"> • Applying knowledge of safe working practises in the metal work room. • Marking, cutting and shaping aluminium. • Using more complex tools and processes including the metal bender. • Applying manufacturing processes within a tolerance. <p>Key concepts: NC content: M1, M2</p>	<p>Sustainable Design</p> <ul style="list-style-type: none"> • Exploring the social and moral issues in the world of design technology. • Life cycle of a product – from cradle to grave. • Developments in in design technology, including examples of embedding intelligence into products and considering how they may impact society and manufacture. • The suitability of one material over another in terms of functionality and it's impact on the environment and society. <p>Key concepts: NC content: I1, I2, I3, T3, T4, D1, D2, M1, M2</p>	<p>Sustainable Design</p> <ul style="list-style-type: none"> • Exploring the social and moral issues in the world of design technology. • Life cycle of a product – from cradle to grave. • Developments in in design technology, including examples of embedding intelligence into products and considering how they may impact society and manufacture. • The suitability of one material over another in terms of functionality and it's impact on the environment and society. <p>Key concepts: NC content: I1, I2, I3, T3, T4, D1, D2, M1, M2</p>	<p>Food for life</p> <ul style="list-style-type: none"> • Exploring how food and food consumption impacts the environment. • Food waste and how to reduce it. • Sustainable fishing • Organic and intensive farming practices. • Building a wider repertoire of cooking skills and techniques. • Practical skills will focus on developing accuracy, speed and independence in using the cooker, measuring <p>Key concepts: NC content C1, C2, C3, C4</p>	<p>Food for life</p> <ul style="list-style-type: none"> • Exploring how food and food consumption impacts the environment. • Food waste and how to reduce it. • Sustainable fishing • Organic and intensive farming practices. • Building a wider repertoire of cooking skills and techniques. • Practical skills will focus on developing accuracy, speed and independence in using the cooker, measuring <p>Key concepts: NC content C1, C2, C3, C4</p>

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