

## Medium Term Planning Document: Design & Technology Year 7 2024-25

### Curriculum Intent:

Design and Technology is an inspiring practical subject. Students will use creativity and imagination to design and make products that solve real and relevant problems. Students will also be taught how to cook and apply the principles of nutrition and healthy eating.

The Design and Technology department hope to inspire and promote creativity through a range of design and make opportunities developing self motivated and confident learners who have the ability to work independently and as part of a team. Our curriculum explores designing and making concepts with students learning how to identify and design for a client, different ways of communicating their design ideas and environmental, social and economic challenges that influence designing and making.

Students work with a range of different materials and learn about their properties and how to work with them safely. Students will also gain an understanding of new and emerging technologies and how new materials allows the development of improved or completely new products.

The food department hope to promote independent learners who have the ability to think on their feet to solve problems as they arise whilst providing them with skills for life to prepare, cook and present quality food to a good standard.

Our curriculum explores the Eatwell Guide and what a balance of good health looks like. Students gain an understanding of food commodities and how to cook and store food safely. Students gain an understanding of the factors that affect food choice and where our food comes from.

At KS3 the textiles curriculum explores the technical skills of stitching, embroidery stitching, appliqué and resist dying. Students will also investigate different construction techniques that can be used when working with textiles. Students will also have the opportunity to develop their analytical skills and knowledge and understanding of historical and contemporary contexts within textiles.

Students will develop their practical, technical and expressive skills through conducting a range of experiments and further develop their critical understanding of analysis through looking at the work of others. Students will also consider the environmental impact that textiles techniques have. Students will investigate the work of others and use this as a source of inspiration for their own designs. Through studying textiles students will be encouraged to develop and refine their ideas and take creative risks.

### ‘Why This, Why Now?’

In our planning we have asked ourselves, ‘Why This, Why Now?’

The KS3 DT roadmap is carefully sequenced to introduce students to progressively more challenging concepts. Year 7 is a year where students first experience specialist teaching areas and how to work safely with basic tools and equipment. Moving into Year 8 students broaden their experience of materials and techniques whilst Year 9 content includes more complex concepts and techniques such as developments in new and emerging technologies.

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The Medium Term Planning document below is designed to show the journey that every student takes through our curriculum. Some elements of the curriculum may be taught over several lessons, others in a single lesson.

Design & Technology	Year 7 – Food Rotation (2 half terms)		
Topic	Content	Formative Assessments?	Link(s) to an example lesson
Food Nutrition and Health	Why we eat food	Use of mini whiteboards Bell work	<a href="#">Year 7 FPN Lesson 1.pptx</a>
	The Eatwell Guide		<a href="#">Year 7 FPN Lesson 2.pptx</a>
	Careers focus – baker		
	Macronutrients – Proteins		<a href="#">Year 7 FPN Lesson 3.pptx</a>
	Macronutrients – Fats and Oils		<a href="#">Year 7 FPN Lesson 4 Fruit Salad.pptx</a>
	Macronutrients – Carbohydrates		<a href="#">Year 7 FPN Lesson 5.pptx</a>
	Micronutrients – Vitamins and Minerals		<a href="#">Year 7 FLN Lesson 6 apple-and-sultana-crumble (5) Teacher step-by-step.pptx</a>
	Energy Balance		
	Careers focus – Kitchen Assistant		
	Nutritional needs for different groups of people		
	Nutritional Analysis		
	<b>Keywords:</b> Nutrients, maintenance, diet, balanced diet, traffic light food label, energy needs, macronutrients, micronutrients, amino acids, high biological value, low biological value, protein complementation, fat-soluble vitamins, saturated fats, unsaturated fats, cholesterol, type 2 diabetes, heart disease, obesity, wholegrain, dietary fibre, basal metabolic rate (BMR), kilocalories (Kcal)		
Food Safety	Where bacteria come from	Use of mini whiteboards	<a href="#">Year 7 FPN Lesson 7a.pptx</a>
	Temperature Control	Bell work	
	<b>Keywords:</b> Bacteria, food spoilage, temperature danger zone, high-risk foods,		
Food Science	Cooking Methods	Use of mini whiteboards	<a href="#">Year 7 FPN Lesson 8.pptx</a>
	Preparing, combining and shaping food.	Bell work	
	<b>Key Words:</b> boiling, simmering, poaching, steaming, deep-fat frying, stir frying, roasting, baking, grilling, skewer, coat, layer, bind, gelatinisation, roux, reduction.		

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Design & Technology	Year 7 – Textiles Rotation (2 half terms)		
Topic	Content	Formative Assessments?	Link(s) to an example lesson
Applique Postcard Project	The importance of textiles	Bell work	<a href="#">Year 7 Textiles - Postcard Project - Lesson 1.pptx</a>
	Fabrics and where they come from	Bell work	<a href="#">Fibres to fabric worksheet - year 7 - Lesson 1.pptx</a>
	<b>Key Words:</b> Fabrics, fibres, natural fibres, synthetic fibres, cotton, polyester, silk.		
	Looking at the work of others	Bell work	<a href="#">Year 7 - Postcard Project - Lesson 4.pptx</a>
	<b>Careers focus – Fashion designer</b>		
	<b>Key Words:</b> embroidery, appliqué, textiles technique, textile artist		
	Textiles tools and equipment	Bell work	<a href="#">Year 7 - Postcard Project - Lesson 2.pptx</a>
	<b>Key Words:</b> Fabric scissors, needle, thread, iron, heat press, cotton		
	Textile decoration techniques – embroidery, appliqué	Bell work	<a href="#">Year 7 - Postcard Project - Lesson 3.pptx</a>
	<b>Key Words:</b> Running stitch, chain stitch, French knot, fly stitch, feather stitch		
	Creating designs	Bell work	<a href="#">Year 7 - Postcard Project - Lesson 5.pptx</a>
	<b>Careers focus – Hat designer</b>		
	<b>Key Words:</b> Embroidery, appliqué, fabric pens, background, foreground, annotation, decoration,		
	Producing a final product	Bell work	<a href="#">Year 7 - Postcard Project - Lesson 6.pptx</a> <a href="#">Year 7 - Postcard Project - Lesson 7.pptx</a> <a href="#">Year 7 - Postcard Project - Lesson 8.pptx</a>
	<b>Key Words:</b> Embroidery, appliqué, fabric pens, background, foreground		
	Evaluation	Bell work	
	<b>Key Words:</b> Textile technique, decorative detail, embroidery, appliqué,		

### Summative Assessment:

Pupil Mid-Year Assessments will take place at the end of half term 2. These will cover all content taught in the first 2 half terms. This assessment will inform pupil Rank Order in the subject.

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Design & Technology	Year 7 – DT Rotation (2 half terms)		
Topic	Content	Formative Assessments?	Link(s) to an example lesson
Designing and making principles	Working safely	Use of mini whiteboards Bell work	
	The work of past and present designers		
	Careers focus – Computer Games developer		<a href="#">Year 7 - Design Strategies Lesson 2.pptx</a>
	Design strategies		
	<b>Key Words:</b> Personal protective equipment (PPE), hazard, safety glasses, apron, ear protectors, safety shoes, designer, product analysis, aesthetics, function, design fixation, iterative design, user-centred design, systems approach.		
Using and working with materials	Timbers	Use of mini whiteboards Bell work	<a href="#">Year 7 - Timbers lesson 1 22-23.pptx</a>
	Careers focus – model maker		
	<b>Key Words:</b> Hardwood, softwood, manufactured boards, grain.		
Focused Practical Task – Block Bot Project	Learning to use tools and equipment safely and accurately - tenon saw, bench hook, vice, try square, pillar drill, battery drill.	Bell work	<a href="#">Year 7 Block Bots Lesson 1 2022.pptx</a> <a href="#">Year 7 Block Bots Lesson 2 2022.pptx</a> <a href="#">Block bot lesson 3 2022.pptx</a> <a href="#">Year 7 Block Bots Lesson 4 2022 .pptx</a> <a href="#">Year 7 Block Bots Lesson 4 2022 .pptx</a> <a href="#">Year 7 Block Bots Lesson 6.pptx</a>
	<b>Key Words:</b> Tenon saw, bench hook, vice, try square, pillar drill, battery drill.		
Drawing Skills	Isometric drawing		<a href="#">YEAR 7 - DRAWING - isometric .pptx</a>
	Rendering		<a href="#">YEAR 7 - RENDERING.pptx</a>
	<b>Key Words:</b> Isometric, rendering, tone, shadows, wood grain		

### Summative Assessment:

Pupil End of Year Assessments will take place at the start of half term 6. These will cover all content taught in the first 5 half terms. This assessment will inform pupil Rank Order in the subject. As well as the content listed below, there is an expectation that staff will work with pupils to improve knowledge in areas of weakness identified in the summative assessments. This may include in school and out of school intervention, and collaborative and independent study.