

Medium Term Planning Document: Design & Technology Year 9 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.

Medium Term Planning Document: Design & Technology Year 9 2024-25

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 9 – Food Rotation (2 half terms)		
Topic	Content	Formative Assessments?	Link(s) to an example lesson
Food Choice	What’s on a label	Use of mini whiteboards Bell work	Year 9 FPN Lesson 1 (2).pptx
	Traffic light labelling		Yr9 Lesson 1 student worksheet (2).docx
	Allergens		
	Careers focus – Dietician		
	Factors affecting food choice		Year 9 FPN Lesson 3.pptx
	British cuisine		Yr 9 Lesson 3 student worksheet (1).docx
	International cuisines		
	Costing food		Year 9 - L7 - costing, cooking, sensory-nutri prop cover (1).pptx
	Keywords: Mandatory, use-by date, best before date, reference intake (RI), allergen, allergic reaction, food intolerance, lactose intolerance, coeliac disease, seasonal foods, cuisine, gnocchi, tiramisu, pannacotta, chapati, tandoori, budget.		
Food Provenance	Where our food comes from	Use of mini whiteboards Bell work	Year 9 FPN Lesson 5.pptx
	Food waste		Yr9 Lesson 5 Student Worksheet (1).docx
	Using seasonal foods		
	Keywords: Food provenance, intensive farming, free range farming, sustainable, food miles, compost heap, natural fertiliser, glut, seasonal food.		
Food Science	Careers focus – Environmental health Officer		
	Cooking of food and heat transfer	Use of mini whiteboards Bell work	Year 9 - L7 - costing, cooking, sensory-nutri prop cover (1).pptx
	How cooking affects sensory and nutritional properties		
	Functional and chemical properties of food – shortening and aeration		Year 9 - L9 Functional & Chemical Properties.pptx
	Functional and chemical properties of food – denaturation and coagulation		
	Functional and chemical properties of food – caramelisation		
	Key Words:		

	Conduction, convection, convection currents, radiation, dry heat, shallow frying, water-soluble vitamins, tenderise, shortening, aeration, stable foam, denature, gas-in-liquid foam, caramelise,
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Medium Term Planning Document: Design & Technology Year 9 2024-25

Design & Technology	Year 9 – Textiles Rotation (2 half terms)		
Topic	Content	Formative Assessments?	Link(s) to an example lesson
	Introduction to how nature influences textiles		
	Key Words: mind map, textiles, mood board, sketch book, presentation, investigation		
Textile portrait project	Analysing the work of others	Bell work	
	Key Words: textile artist, mixed media, embroidery stitching, mark making, photography.		
	Mark making within textiles	Bell work	
	Key Words: Cross hatching, pointillism, alternating lines, continuous lines, circular scribbles, broken lines, texture, tone,		
	Textile Decoration – block printing		
	Key Words: Polystyrene tile, ink, roller, mark making, pattern, design, texture		
	Textile decorative technique recap & extension – Embroidery	Bell work Careers focus – Footwear Designer	
	Key Words: Running stitch, chain stitch, French knot, fly stitch, feather stitch, embroidery thread, fabric scissors, needle, and calico.		
	Recording and observing their own work by producing a drawing of their outcome,		
	Key Words: Drawing, tone, line, shape, render, texture, mark making		
	Fashion Illustration		
	Key Words: Embroidery, texture, mark making, line, form,		
	Free motion embroidery	Bell work Careers focus – Leather craftworker	
	Key Words: sewing machine, continuous line, texture, detail, experimental,		

Medium Term Planning Document: Design & Technology Year 9 2024-25

	Evaluation of outcomes	Bell work	
	Key Words: appliqué, embroidery, decorative detail, textiles technique, block print, sewing machine, mixed media,		

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.

Medium Term Planning Document: Design & Technology Year 9 2024-25

Design & Technology	Year 9 – DT Rotation (2 half terms)		
Topic	Content	Formative Assessments?	Link(s) to an example lesson
Designing and making principles	Contexts: informing possible outcomes	Use of mini whiteboards Bell work	Year 9 DT Lesson 1 - contexts & clients.pptx
	Identifying client and user needs.		
	Environmental, social and economic challenges that influence designing and making,		Year 9 DT Lesson 2 - Social, moral, environmental issues & metals.pptx
	Key Words: Design context, design possibilities, client, client profile, primary data, secondary data, anthropometric data, sustainability, reusing, recycling, social issue, economy, profit.		
Using and working with materials	Metals	Use of mini whiteboards Bell work	Year 9 DT Lesson 3 - New & Emerging Technologies.pptx
	Careers focus – CNC Machinist		Year 9 Lesson 4 - Sustainability.pptx
	Key Words: Ore, alloy, ferrous metal, non-ferrous metal, casting.		
New developments in technology	New and emerging technologies	Use of mini whiteboards Bell work	Year 9 DT Lesson 3 - New & Emerging Technologies.pptx
	Key Words: Automation, computer-aided design (CAD), computer-aided manufacture (CAM), crowdfunding.		
Focused Practical Task – Lamp Project	Careers focus – Packaging Designer		
	Use of tools and equipment when working with timbers and metals – coping saw, tenon saw, bench hook, vice, soldering iron,	Bell work	Year 9 DT Lesson 6, 7, 8.pptx
	Key Words: coping saw, tenon saw, bench hook, vice, soldering iron, pillar drill, battery drill		
	Evaluation		

Summative Assessment:

Medium Term Planning Document: Design & Technology Year 9 2024-25

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.