

Medium Term Planning Document: Design & Technology Year 8 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 8 – Food Rotation (2 half terms)		
Topic	Content	Formative Assessments?	Link(s) to an example lesson
Food Commodities	Cereals – wheat into flour	Use of mini whiteboards Bell work	Year 8 FPN Lesson 1 - Wheat, Flour, Milk.pptx
	Wheat – bread and pasta		Year 8 FPN Lesson 2 - Bread.pptx
	Milk		
	Careers focus – Caterer		
	Oats and rice		Year 8 FPN Lesson 3 - Oats & Rice.pptx
	Potatoes and vegetables		Year 8 FPN Lesson 4 - Scone based pizza.pptx
	Cheese and yoghurt		
	Meat		Year 8 FPN Lesson 5 - Meat, Poultry, Fish.pptx
	Poultry		Year 8 FPN Lesson 6 - Burgers.pptx
	Fish		
	Keywords: Cereals, fortified, primary processing, milling, extraction rate, fibre, gluten, durum wheat flour, rolled oats, oatmeal, polishing, 5-a-day, tuber, pasteurised milk, sterilised milk, ultra-heat treatment milk, micro-filtered milk,secondary processing, starter culture, lactose, lactic acid, rennet, coagulate, curds and whey, lean meat, contaminate, food-poisoning bacteria, filleted, white fish, oily fish, shellfish.		
	Food Choice	Sensory evaluation	Use of mini whiteboards Bell work
Sensor evaluation – tasting		Year 8 FPN Lesson 8 - Pasta Salad.pptx	
Sensory evaluation – profiling			
Careers focus – Chef			
Keywords: Aroma, mouthfeel, sensory evaluation, sensory descriptors, taste buds, umami, paired preference test, hedonic ranking, triangle test, ranking test, rating test, profiling test.			
Skills focus	Chemical raising agents	Use of mini whiteboards Bell work	Year 8 FPN Lesson 9 - Raising Agents.pptx
	Biological raising agents		
	Mechanical raising agents		
	Key Words: Raising agents, baking powder, bicarbonate of soda, self-raising flour, yeast, fermentation, whisking, beating, folding, sieving, creaming, rubbing in, stiff peak stage		

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Design & Technology	Year 8 – Textiles Rotation (2 half terms)		
Topic	Content	Formative Assessments?	Link(s) to an example lesson
Soft Toy Monster Project	Health and Safety and Product analysis	Bell Work	Year 8 Textiles - Monsters - Lesson 2 - 2022-23.pptx
	Key Words: Material testing, quality control, health and safety,		
	Fabrics and Fibres – Fabric dyeing	Bell Work	Year 8 Textiles - Monsters - Lesson 1 - 2022-23.pptx
	Key Words: Natural fibres, Synthetic Fibres, Cotton, Poly Cotton, Calico, Polyester, Silk, Sustainability, Fabric dyeing, Pigment		
	Textile decorative technique - Tie Dyeing – Practical	Bell Work	Year 8 - Textiles - Lesson 3 - Tie Dye.pptx
	Key Words: Tie-Dye, Resist dyeing, Calico, Cotton, Pigment, Fabric Dye, Soda ash, Dye bath.		
	Textile decoration techniques – embroidery	Bell Work	Year 8 - Textiles - Lesson - embroidery.pptx
	Careers focus – Costume Designer		
	Key Words: Running stitch, chain stitch, French knot, fly stitch, feather stitch, blanket stitch, embroidery thread, fabric scissors, needle and calico.		
	Creating Designs	Bell Work	Year 8 - Textiles - Lesson 4 - Design Ideas.pptx
	Key Words: Embroidery, Appliqué, Tie-Dye, Decoration		
	Pattern cutting	Bell Work	Year 8 - Textiles - Lesson 5 - Pattern cutting .pptx
	Careers focus – Pattern Cutter		
	Key Words: Pattern piece, grain line, seam allowance,		
	Producing a final product	Bell Work	Year 8 - Textiles - Lesson 6 - Cutting out fabric.pptx Year 8 - Textiles - Lesson 7 - Applique .pptx

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			Year 8 - Textiles - Lesson 8 .pptx Year 8 - Textiles - Lesson 9 .pptx
	Key Words: Embroidery, appliqué, pattern piece, fabric scissors, thread, pins, and needle.		
	Evaluation of final product	Bell Work	
	Key Words: appliqué, embroidery, decorative detail, textiles technique, tie-dye.		

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 8 – DT Rotation (2 half terms)	
Topic	Content	Formative Assessments?	Link(s) to an example lesson
Designing and making principles	Writing a design brief and specification	Use of mini whiteboards Bell work	Year 8 Mobile Phone Holder - Lesson 1.pptx
	Energy		Year 8 - DT - Lesson 1 - Worksheet.docx
	Key Words: Design brief, constraint, design specification, manufacturing specification, tolerance, fossil fuels, non-renewable energy source, nuclear power.		
Using and working with materials	Material properties	Use of mini whiteboards Bell work	Year 8 Mobile Phone Holder - Lesson 2.pptx
	Polymers		Year 8 DT - Lesson 2 - Worksheet.docx
	Careers focus – Furniture Maker		
	Key Words: Strength, hardness, toughness, malleability, density, electrical conductivity, absorbency, monomers, polymer, thermoplastic polymers.		
New developments in technology	New materials	Use of mini whiteboards Bell work	Year 8 DT - Lesson 3 - Worksheet.docx Year 8 Mobile Phone Holder - Lesson 3.pptx
	Careers focus – Graphic Designer		
	Key Words: Graphene, composite material, smart material		
Focused Practical Task – Mobile Phone Holder	Use of tools and equipment when working with polymers – coping saw, files, wet and dry paper, line bender, tensol cement.	Bell work	Year 8 Mobile Phone Holder - Lesson 4.pptx Year 8 Mobile Phone Holder - Lesson 5.pptx Year 8 Mobile Phone Holder - Lesson 6 MTP.pptx Year 8 Mobile Phone Holder - Lesson 7 MTP.pptx Year 8 Mobile Phone Holder - Lesson 8 MTP.pptx

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			Year 8 Mobile Phone Holder - Lesson 9 MTP.pptx
	Key Words: Coping saw, flat file, round file, half-round file, square file, triangular file, glasspaper, wet and dry paper, masking tape, vice.		



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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.