

Long Term Plan DT

KS3 (Year 7, 8 and 9)

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Subject intent/vision:

The Design and Technology Department is committed to deliver a curriculum that offers the broadest possible range of opportunities for our students. We are passionate about developing and encouraging creativity, teamwork, determination and resilience in all our students. We encourage students to be curious about the 'make' and 'functionality' of products, so they can develop an understanding of technological processes, products, manufacturers, and their contribution to our society. We want our students to be problem solvers who take creative risks. Students learn by 'doing' and they should be able to experiment and have multiple opportunities to design and make innovative products that solve real and relevant problems, within a variety of contexts.

At KS3, students study Design and Technology for one hour each week and at KS4 students study the subject for three hours each week. KS3 students follow a 10-week rotation of each of the four specialist subjects (Product Design, Textiles, and Food Technology). This provides them with a strong foundation and the ability to make informed choices regarding further study at KS4 and beyond. Our DT KS3 curriculum is based on a variety of creative and practical activities where pupils will be taught the knowledge, understanding and foundation skills needed to engage in an iterative process of designing -make-evaluate- technical knowledge.

Enrichment:

We are offering weekly KS3 DT clubs in product Design, Textiles and Electronics

V&A Innovate- KS3 students participate in the V&A Design Challenge which is run by the Victoria and Albert Museum.

To enable all students to achieve, our subject curriculum is underpinned by the following principles:



Ambitious - The art curriculum is planned backward ensuring a deep and purposeful sequence of activities for a wider knowledge, instead of narrow learning episodes.



Sequenced / Spiral – Key learning (and practical skills) is repeated throughout the curriculum for equal access, regardless of the students starting point during the academic year.



Literacy - Key learning is embedded through contextual studies, giving students a chance to think and write critically about responses or personal outcomes. Students also write about the process and materials relevant to their project.



Cultural Capital – The department is committed to expose students to a range of artists and designers throughout the curriculum and gallery visits and is working towards building a relationship with local creative people and institutions to organise visits and workshops.

Long term plan:

Y7 Textiles - Felt Monster

Half term 1 (Week 1 to week 6)	Half term 2 (Week 6 to week 12)
Exploration of the theme and application of skills Introduction to Textiles H&S rules Introduction to Surface Decoration highlighting the following tools/skills through: • Applique' • Embroidery • Fabric Embellishment c) Assessment 1 - Design task	Design, Make and Evaluate a) Intro to Sewing machine b) Sewing machine driving test on paper c) Pattern Cutting d) Making of Felt Monster e) Making of Felt Monster (completing decoration) f) Evaluation
Assessment: Research, application of decorative techniques, personal outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product	Assessment: Research, application of decorative techniques, personal outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product

Y8 Textiles - Architecture bag

Half term 1 (Week 1 to week 6)	Half term 2 (Week 6 to week 12)
Exploration of the theme and application of skills ○ Introduction to Textiles H&S rules ○ ○ Introduction to Surface Decoration highlighting the following tools/skills through: ○ Transfer Print ○ Patchwork ○ Embroidery Assessment 1 - Design task	Design, Make and Evaluate ● Intro to Sewing machine ● Learn how to create a hem on the fabric by using a sewing machine ● Introduction to pattern cutting ● Making of Bag inspired by Architecture (completing decoration) ● Diary of manufacture ● Evaluation
Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product	Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product

Y9 Textiles - Soft Sculpture

Half term 1 (Week 1 to week 6)	Half term 2 (Week 6 to week 12)
Exploration of the theme and application of skills WEEK 1 Introduction to the theme & Inspiration - Explore food as art – artists/designers inspired by food (e.g., Claes Oldenburg, Lucy Sparrow) - Mood boards: Research and create a collage of food-related textile inspirations WEEK 2 Drawing & Design Development - Observational drawings of food - Annotation of ideas: texture, color, form - Assessment 1 - Design task - Initial design ideas – sketch 2–3 food sculpture concepts Week 3 – Final Design & Planning - Develop final design idea - Materials selection and justification (felt, stuffing, threads, embellishments) - Create annotated final design Week 4 – Textiles Techniques Introduction - Demonstrate basic textiles skills: - Hand sewing (running, back, whip stitch) - Decorative techniques (appliqué, embroidery, fabric paint) - Practice stitches on a sample Week 5 – Fabric Manipulation & 3D Construction - Explore ways to create 3D shapes in fabric (gathering, darts, seams) Week 6 – Start Practical Work - Cut out fabric pieces based on template - Begin constructing sculpture - Hand sewing or machine sewing	Design, Make and Evaluate Week 7 Continue Practical Work - Assemble structure of sculpture - Add stuffing for 3D form - Ensure accurate stitching and neatness Week 8 –Add Surface Detail - Apply decorative elements (e.g., sprinkles, seeds, embroidery) - Use appliqué or fabric paint for surface features Week 9 – Refinement - Complete construction and finishing touches - Quality control: Check durability and neatness - Peer/self-assessment with success criteria Week 10 Presentation Prep - Write an evaluation: What went well, what could be improved? Week 12 – Reflection - Recap key textiles skills and processes learned - Written reflection on the full project
Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product	Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product

KS3 FOOD TECHNOLOGY

Y7 Food - Healthy Eating

Half term 1 (Week 1 to week 6)	Half term 2 (Week 6 to week 12)
Introduction to H&S in a food classroom and to healthy eating • Intro to health and Safety rules in a food technology classroom • Intro to Tools and equipment used in Food Technology • Intro to cutting techniques • Eatwell plate and food groups and nutrients • Measuring Ingredients • Fruit salad (Practical)	Cooking techniques and design a recipe ○ Evaluation of Fruit salad ○ Apple Crumble - Rubbing in method ○ Apple Crumble Evaluation ○ Design a healthy breakfast ○ Rock buns- Practical ○ Evaluation
Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product	Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product

Y8 Food - Cake Mixing Methods

Half term 1 (Week 1 to week 6)	Half term 2 (Week 6 to week 12)
Introduction to H&S in a food classroom and to healthy eating WEEK 1 Intro to health and Safety rules in a food technology classroom WEEK 2 Intro to Creaming method (cupcakes) WEEK 3 Evaluation Skills & Sensory Analysis • How to evaluate texture, appearance, flavour • Introduction to star diagrams and sensory vocab WEEK 4 Intro to Rubbing - in method (Rock cakes) WEEK 5 Intro to the All-in-One method (Victoria Sponge) WEEK 6 Packaging and Labelling • How cakes are packaged commercially • Design considerations (branding, nutrition info)	Cooking techniques and design a recipe WEEK 7 Intro to the Whisking method' (Swiss Roll) WEEK 8 Theory- Cross Contamination WEEK 9 Chocolate Marble Cake (Practical) WEEK 10 : Evaluation & Peer Feedback • Use evaluation sheets, peer assess cakes • How to improve outcomes next time WEEK 11 Theory: Final Reflection & Assessment • Skills recap, what went well, what to improve • Link to food industry careers WEEK 12 Practical: Group Bake Off! • Teams choose a method and bake a showstopper
Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product	Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product

Y9 Food - Special Diet

Half term 1 (Week 1 to week 6)	Half term 2 (Week 6 to week 12)
Introduction to H&S in a food classroom and to healthy eating WEEK 1 • Intro to health and Safety rules in a food technology classroom • Intro to Tools and equipment used in Food Technology WEEK 2 Introduction to Dietary needs Theory: • What are dietary requirements? • Difference between allergies, intolerances, preferences, and religious/cultural diets • Food labelling laws (allergens) WEEK 3 Gluten Free Pizza (using alternative flour base) WEEK 4 Dairy Intolerance Theory: • Lactose intolerance vs milk allergy • Dairy alternatives (oat, soy, coconut milk, vegan cheese) WEEK 5 Vegetarian Stir Fry WEEK 6 Vegan Diets Theory: • What is a vegan diet? • Benefits, challenges, and label reading	Cooking techniques and design a recipe WEEK 7 • Religious and Cultural Diets Theory • Cultural dish (vegetarian curry, falafel wraps etc.) WEEK 8 Low Sugar diets • Sugar and health (diabetes, obesity) • Natural sweeteners (fruit purée, stevia, honey) • How to read sugar content on labels WEEK 9 Sports Nutrition Theory: • Importance of protein in growth and repair • Complete vs incomplete proteins • Diet for active lifestyles and athletes WEEK 10 Gluten-free pasta dish with veggies and protein WEEK 11 Evaluation lesson Theory: • Recap key dietary principles • Peer feedback and self-evaluation • Discussion: how food impacts health and inclusion
Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product	Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product

Y7 CAD - Keyring

Half term 1 (Week 1 to week 6)	Half term 2 (Week 6 to week 12)
Exploration of the theme and application of skills a) Introduction to 5W vocab and context brief b) Mood board c) Client Interview d) Introduction to CAD, highlighting the following tools/skills through specifically designed tasks : • Using the line tool to create 2D geometric shapes and letters/words. • Using a copy and paste tool to create a 3d form. • Delete tool to crop/erase specific lines and shapes. • Using vectorise to convert an image into a monochrome stencil on 2D Design • Contour tool to convert an image into a 2d design stencil	Design, Make and Evaluate a) Presentation page "CAD" for introduction booklet to each tool. b) 3 week lesson on responding to project theme and designing a personalised key ring using relevant mind maps and client interview and 3d software tools and techniques to inspire the creative process towards a personal outcome. a) Highlight specific lines in a colour coded system for laser cutters to cut and etch. c) To present and refine the final design through critical studies and analysis. d) Personal outcome produced through Laser cutter.
Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product	Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product

Y8 product design - Pencil Holder and Stickers Project

Half term 1 (Week 1 to week 6)	Half term 2 (Week 6 to week 12)
1. Introduction to the H&S rules in a wood workshop 2. Introduction to the project: • Design a storage/jewellery box by following a specification 3. Mark out and cut wood pieces 4. Assemble box structure 5. Attach Lid and Hinges 6. Sand and prepare surfaces • Apply finish and decorative techniques	7. Introduction to the Stickers Project • Explore examples of vinyl stickers (commercial and custom) - Introduction to project: "Create a themed sticker pack of 3–5 designs" - Define target audience (e.g., for your laptop, water bottle, school books, etc.) - Begin brainstorming ideas and sketching initial designs 8. Intro to Vector • Learn the basics of the design software (drawing shapes, paths, text) • Practice converting sketches to digital form 9. Develop designs • Continue working on the sticker set (aim for 3–5 unique designs) • Peer feedback session to refine designs 10. Using the Vinyl Cutter • Demonstration on how to set up and safely use the vinyl cutter - Students cut their first sticker 11. Final Cutting and Assembly • Cut remaining sticker designs • Weed and transfer stickers to backing sheets 12. Finishing and Evaluation
Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product	Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product

Y9 3D printing -Lamp project

Half term 1 (Week 1 to week 6)		Half term 2 (Week 6 to week 12)
Exploration of the theme and application of skills a) Context brief (highlighting a problem statement) b) Mood board c) Client Interview d) Introduction to Tinkercad, highlighting the following tools/skills through specifically designed tasks : • Select tool to increase and decrease height, width and depth of a shape. • Text tool to add specific words. • Cruise tool to magnify objects onto another. • Copy and paste tool to duplicate objects. • Group tool to allow 2 objects to form into one. • Rotation and hollow tool to allow shapes to be rotated and create holes within form.		Design, Make and Evaluate a) Presentation page “Tinkercad” for introduction booklet to each tool. b) 3 week lesson on responding to project theme and designing a personalised lamp shade using relevant mind maps and client interview and 3d software tools and techniques to inspire the creative process towards a personal outcome. c) To present and refine the final design through critical studies and analysis. d) Personal outcome produced through 3D Printer.
Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product		Assessment: Research, application of decorative techniques, Personal Outcome. Research: Carrying out investigations to identify problems and needs Designing: Communicating Design Ideas Making: Assembly and Manufacturing Evaluation: Evaluation of Final Product

Learning Resources:

Food Technology

bbcgoodfood.com/recipes/collection/teenager-recipes

<https://www.bbc.co.uk/teach/class-clips-video/articles/zvjh8xs>

<https://www.foodafactoflife.org.uk/>

Design & CAD Tools

<https://www.bbc.co.uk/bitesize/examspecs/zby2bdm>

tinkercad.com

scratch.mit.edu

Textiles

instructables.com

<https://www.bbc.co.uk/bitesize/guides/zjc3rwx/revision/1>

https://www.vam.ac.uk/collections?srsId=AfmBOor_wkaK6nnlqX38_QDRRjaAYg2xl6lslhhfqDkNrJKJeePDXzcG

<https://www.vam.ac.uk/young?srsId=AfmBOopGAwgDnt52hmGJwdtqStdWykRe6JVpGzQKwblRaBjc1RtcE41E>