Dothill Progression Mapping

Design Technology

Respect Happiness Responsibility Creativity HONESTY Enthusiasm Confidence Kindness Cooperation fairness

	Year Five	Year Six
Design	**Cushion – re-purpose materials (including embroidery)** **Controllable vehicles – Aleksandr Leonovich Kemurdzhian** ✓ Use internet and questionnaires for research and design ideas ✓ Take a user's view into account when designing ✓ Begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose ✓ Create own design criteria ✓ Have a range of ideas ✓ Produce a logical, realistic plan and explain it to others. ✓ Use cross-sectional planning and annotated sketches ✓ Make design decisions considering time and resources. ✓ Clearly explain how parts of product will work. ✓ Model and refine design ideas by making prototypes and using ✓ pattern pieces. ✓ Use computer-aided designs	**Victorian Fairground - Frederick Savage** **Pizza (Healthy)** ✓ Draw on market research to inform design about Victorian Fairgrounds and Healthy Pizzas ✓ Use research of user's individual needs, wants, requirements for design ✓ Identify features of design that will appeal to the intended user ✓ Create own design criteria and specification ✓ Come up with innovative design ideas ✓ Follow and refine a logical plan. ✓ Use annotated sketches, cross-sectional planning and exploded ✓ Diagrams ✓ Make design decisions, considering, resources and cost ✓ Clearly explain how parts of the design will work, and how they are fit for purpose ✓ Independently model and refine design ideas by making prototypes and using pattern pieces ✓ Use computer-aided designs
Make	✓ Use selected tools/equipment with a good level of precision ✓ Produce suitable lists of tools, equipment/materials needed ✓ Select appropriate materials, fit for purpose; explain choices, considering functionality ✓ Create and follow detailed step by-step plan ✓ Explain how product will appeal to an audience ✓ Mainly accurately measure, mark out, cut and shape ✓ materials/components ✓ Mainly accurately assemble, join and combine ✓ materials/components ✓ Mainly accurately apply a range of finishing techniques ✓ Use techniques that involve a small number of steps ✓ Begin to be resourceful with practical problems	✓ Use selected tools and equipment precisely ✓ Produce suitable lists of tools, equipment, materials needed, ✓ considering constraints ✓ Select appropriate materials, fit for purpose; explain choices, considering ✓ functionality and aesthetics ✓ Create, follow, and adapt detailed step-by-step plans ✓ Explain how product will appeal to audience: make changes to improve quality ✓ Accurately measure, mark out, cut and shape materials/components ✓ Accurately assemble, join and combine materials/components ✓ Accurately apply a range of finishing techniques ✓ Use techniques that involve several steps ✓ Be resourceful with practical problems

Evaluate	✓ Evaluate quality of design while designing and making ✓ Evaluate ideas and finished product against specification, ✓ considering purpose and appearance. ✓ Test and evaluate final product ✓ Evaluate and discuss existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose ✓ Begin to evaluate how much products cost to make and how innovative they are ✓ Research how sustainable materials are ✓ Talk about some key inventors and designers	✓ Evaluate quality of design while designing and making; is it fit for purpose? ✓ Keep checking design is best it can be. ✓ Evaluate ideas and finished product against specification, stating if it is fit for purpose ✓ Test and evaluate final product; explain what would improve it and the effect different resources may have had ✓ Do thorough evaluations of existing products considering: how well they've been made, materials, whether they work, how they've been made, fit for purpose ✓ Evaluate how much products cost to make and how innovative they are ✓ Research and discuss how sustainable materials are ✓ Consider the impact of products beyond their intended purpose ✓ Discuss some key inventors, designers and chefs
Technical Knowledge	**Technical Knowledge-Textiles (Cushion)** ✓ Think about user and aesthetics when choosing textiles ✓ Use my own template ✓ Think about how to make product strong and look better ✓ Think of a range of ways to join things ✓ Begin to understand that a single 3D textiles project can be made from a combination of fabric shapes. **Technical Knowledge-Mechanisms (Controllable vehicles)** ✓ Refine product after testing ✓ Grow in confidence about trying new / different ideas ✓ Begin to use cams, pulleys or gears to create movement	**Technical Knowledge-Mechanisms (Victorian Fairground)** ✓ Refine product after testing, considering aesthetics, functionality ✓ and purpose ✓ Incorporate hydraulics and pneumatics ✓ Be confident to try new / different ideas ✓ Use cams, pulleys and gears to create movement **Technical Knowledge-Food and Nutrition (Pizza)** ✓ Understand a recipe can be adapted by adding / substituting ingredients ✓ Explain seasonality of foods ✓ Learn about food processing methods ✓ Name some types of food that are grown, reared or caught in the UK or wider world ✓ Adapt recipes to change appearance, taste, texture or aroma. ✓ Describe some of the different substances in food and drink, and how they can affect health ✓ Prepare and cook a variety of savoury dishes safely and hygienically including, where appropriate, the use ✓ of heat source. ✓ Use a range of techniques confidently such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.

Vocabulary	**Design Vocabulary** Design decisions Functionality Authentic User Purpose Design specification Design brief Innovative Research Evaluate Design criteria Annotate Evaluate Mock-up Prototype	**Technical Knowledge and Making** Pulley Drive belt Gear Rotation Spindle Driver Follower Ratio Transmit Axle Motor Circuit Switch Circuit diagram, Annotated drawings Mechanical system Electrical system Input Process Output	**Evaluate** Assess Edit Improve Alter Outcome Develop Test Analyse Effective Fit for purpose Design criteria Alternatives Models Quality Function Functionality		**Design Vocabulary** Plan Organise Prototype Initial ideas Criteria Diagrams Labels Annotate Brief Product Consumer Customer Target audience Purpose Application Constraints Client	**Technical Knowledge and Making** Frame structure Stiffen Strengthen Reinforce Triangulation Stability Shape Join Temporary Permanent Pulley Drive belt Gear Rotation Spindle, Driver Follower Ratio Transmit Axle, Motor Circuit Switch Circuit diagram Annotated drawings Exploded diagrams Mechanical system Electrical system Input Process Output	**Cooking and Nutrition** Healthy Unhealthy Balanced Vitamins Disease Nutrition Hygiene Diet Cross contamination Grams Storage Presentation Taste Texture Flavour Disinfect Bacteria Ingredients Yeast Dough Flour Wholemeal Unleavened Baking soda Spice Herbs Fat Sugar Carbohydrate Protein Vitamins Nutrients Varied Gluten Dairy Allergy Intolerance Savour Source Seasonality Utensils Combine Fold	**Evaluate** Assess Edit Improve Alter Outcome Develop Test Analyse Effective Fit for purpose Design criteria Alternatives Models Quality Function Functionality

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