

UKS2 Design and Technology Detailed Progression of Skills and Knowledge Year 5

Structures: Bridges

Year 5 D&T Unit: Pupils design and construct a bridge structure, investigating forces, stability, and material strength. They explore how trusses, beams, and joints affect load-bearing and evaluate their designs.

Prior learning: Structures: Pavilions

Suggested next steps: Structures: Playgrounds

Lesson	Learning Objectives	Core Knowledge	Core Skills	Key Vocabulary
1: Exploring bridges	To identify and compare bridge types.	Know about beam, arch, and truss bridges and how they distribute load.	Identify features of different bridge designs through research and observation.	bridge, beam, arch, truss, load
2: Testing bridge strength	To investigate how shape and materials affect strength.	Understand how triangles and trusses improve strength and stability.	Test different bridge shapes and record results.	strength, stability, truss, tension, compression
3: Designing a bridge	To design a bridge that meets design criteria.	Know how to plan and label a structure design considering forces and materials.	Draw a detailed, annotated bridge plan.	design, plan, criteria, annotated
4: Constructing a bridge	To construct a frame structure using accurate measurements.	Understand how to use materials and joints for rigidity.	Cut, measure, and join materials to construct a model bridge.	rigid, join, frame, structure
5: Testing and evaluating bridges	To evaluate how effective my bridge is.	Know how to test structures safely and suggest improvements.	Evaluate a bridge's performance based on strength and stability tests.	evaluate, improve, performance

Cooking and Nutrition: Developing a Recipe

Year 5 D&T Unit: Pupils explore food production and nutrition, adapting and developing a recipe for bolognese sauce. They investigate where ingredients come from and practise safe preparation and cooking techniques.

Prior learning: Cooking and nutrition: Adapting a recipe

Suggested next steps: Cooking and nutrition: Come dine with me

Lesson	Learning Objectives	Core Knowledge	Core Skills	Key Vocabulary
1: From farm to fork	To understand how ingredients are reared and processed.	Know how food travels from farm to plate and the stages of meat production.	Describe food processes using flow diagrams or notes.	farm, process, production, reared, fork
2: Different choices	To make adaptations to design a recipe.	Understand how to change ingredients to suit dietary needs or preferences.	Adapt recipes for nutritional or cultural reasons.	adapt, recipe, choice, ingredient
3: Nutritional value	To evaluate nutritional content.	Know what nutrients are and their importance for a balanced diet.	Analyse nutritional information on packaging.	nutrient, nutrition, balanced, value
4: Preparing ingredients	To practise food preparation skills.	Know how to prepare and cook ingredients safely using hygienic methods.	Peel, chop, grate, and measure ingredients with accuracy.	hygiene, prepare, chop, grate, measure
5: Designing labels	To design a product label.	Understand that labels communicate brand and nutritional information.	Design a clear, creative label for a food product.	label, design, brand, product
6: Making bolognese	To follow and make an adapted recipe.	Know how to follow a recipe to prepare and cook food safely.	Cook an adapted bolognese sauce using correct techniques.	recipe, cook, safety, sauce

Textiles: Stuffed Toys

Year 5 D&T Unit: Pupils design, make, and evaluate a stuffed toy using textiles. They explore pattern creation, blanket stitch, and decorative techniques, focusing on precision and finish.

Prior learning: Textiles: Fastenings

Suggested next steps: Textiles: Waistcoats

Lesson	Learning Objectives	Core Knowledge	Core Skills	Key Vocabulary
1: Designing a stuffed toy	To design a stuffed toy using templates.	Know how to plan component shapes and details for a toy.	Design and draw a toy pattern with labelled features.	design, shape, template, detail
2: Blanket stitch	To sew a blanket stitch.	Understand how to use blanket stitch to join fabric edges neatly.	Practise sewing blanket stitch with even spacing.	blanket stitch, sew, stitch, join
3: Details and appendages	To create and add decorations to fabric.	Know that appliqué and decorative stitching can enhance appearance.	Add features such as arms, eyes, or clothing using fabric shapes.	appliqué, decorate, appendage, detail
4: Stuffed toy assembly	To use a blanket stitch to assemble components.	Understand how to assemble and stuff fabric pieces securely.	Join components using blanket stitch and add stuffing.	stuffed toy, fabric, assemble, stuffing
5: Evaluating	To evaluate the final product.	Know how to assess the quality and durability of the product.	Identify strengths and areas for improvement in design and finish.	evaluate, product, improve, quality