



We want our pupils to leave school being able to describe design purposes, plan and evaluate a design project and confidently use materials to create products. We want our children to be able to cook healthy meals, have basic sewing skills and to be able to join materials to create structures.

NC Objectives:

Pupils should be taught:

Design ♣ design purposeful, functional, appealing products for themselves and other users based on design criteria ♣ generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology **Make** ♣ select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] ♣ select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics **Evaluate** ♣ explore and evaluate a range of existing products ♣ evaluate their ideas and products against design criteria **Technical knowledge** ♣ build structures, exploring how they can be made stronger, stiffer and more stable ♣ explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Skill	Year 1/2	Year 3/4	Year 5/6
Designing and planning	<ul style="list-style-type: none"> Draw a simple picture of their design and label it. With help, think of steps to design a product where the starting point is already given. 	<ul style="list-style-type: none"> Describe how their designs will be fit for purpose. Collect information from a number of different sources and use them to influence their planning. Think of realistic steps to follow when planning. Plan which tools and materials they will use. Draw and label sketches of their design when planning. 	<ul style="list-style-type: none"> Develop detailed design criteria for specific individuals or groups. Draw individual sections of a design as well as the final piece. (i.e. pattern pieces/ cross-sectional diagrams/exploded view drawings) Use design software such as paint to create a prototype of a design. Check and re-evaluate their plans as their work progresses.
Evaluating and appreciating	<ul style="list-style-type: none"> Study products by professional designers and highlight what they like or do not like about it. Identify their own strengths and weaknesses Know that a designer designs products. 	<ul style="list-style-type: none"> Explain how an existing design product is useful to the user. Identify how they could improve their product. Evaluate their product throughout the creation process and begin to make changes. Explain how products have changed over time (i.e. toys, fashion etc.) 	<ul style="list-style-type: none"> Explain the form and function of existing designs Describe similarities and differences between their own work and the work of others (including professional designers). Identify how they could improve their product and implement changes both while making the product and after the product has been made. Create a timeline to show how designs have evolved over time and have been influenced by technology.
Cookery and nutrition	<ul style="list-style-type: none"> Follow a simple, healthy recipe with support i.e. a pasta salad To follow basic food hygiene practices. Measure and weigh food items using non standards units i.e. cups/ spoons Identify the main food groups Name some foods which are healthy Explain where their food comes from (animals/ plants/ countries) 	<ul style="list-style-type: none"> Demonstrate hygienic food preparation and storage. Follow a recipe to cook a healthy meal independently i.e. bean burgers. Use blunt knives and peelers to prepare fruit and vegetables Cut (with dinner knives), peel, grate and chop food. Measure using electronic scales and jugs marked with ml Identify what makes a balanced diet Explain why some foods are healthy Identify foods which come from the UK and which come from other places around the world 	<ul style="list-style-type: none"> Plan and cook a healthy meal with different components i.e. a soup and bread. Describe why the meal they have cooked is healthy Use sharp knives under supervision to cut vegetables. Weigh using standard scales Bake using pastry and dough Understand seasonality and describe which foods are in season
Textiles	<ul style="list-style-type: none"> Cut out shapes from fabric Join fabric using a simple running stitch 	<ul style="list-style-type: none"> Sew a button Create patterns using embroidery Measure, tape or pin, cut and join fabric with some accuracy 	<ul style="list-style-type: none"> Cut, then join textiles using a running stitch, over sewing, back stitch or fastenings. Understand seam allowance Create simple patterns and appropriate decoration techniques (e.g. applique)

Design and Technology

			<ul style="list-style-type: none"> • Create a 3D product i.e. clothes, a cushion cover etc.
Card making	<ul style="list-style-type: none"> • Fold, tear, roll and cut paper and card. • Create a simple pop up card 	<ul style="list-style-type: none"> • Create more complex pop up cards 	<ul style="list-style-type: none"> • Use a craft knife and rubber mat to score designs in card.
Structures, joining and mechanisms	<ul style="list-style-type: none"> • Use junk modelling to create simple structures • Improve their structures by making them stronger and more sturdy • Measure, mark out and cut a range of materials with help. • Use glues and masking tape to join materials • Choose appropriate tools for a task. • Choose their own materials from a small selection, with help. 	<ul style="list-style-type: none"> • Build a frame using stronger materials wood/ corrugated card/ plastic to support their designs. • Explore ways to strengthen structures i.e. diagonal struts, nets, strong foundations, triangle shapes. • Use wheels and cogs in a design 	<ul style="list-style-type: none"> • Use cams mechanisms and levers • Incorporate circuits into their designs • Develop Y3/4 skills by cutting, joining and assembling with accuracy. • Use a wide range of tools, selected by the children to best suit the task. • Use glue guns to join materials