Minchinhampton C of E Primary Academy Milestones – DT

Subject	Subject specifics	By the end of KS1	By the end of LKS2	By the end of UKS2
DT	**Design**	• Generate ideas by drawing on their own and other people's experiences • Develop their design ideas through discussion, observation, drawing and modelling • Identify a purpose for what they intend to design and make. • Identify simple design criteria • Make simple drawings and label parts	• Generate ideas, considering the purposes for which they are designing • Make labelled drawings from different views showing specific features. • Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail • Evaluate products and identify criteria that can be used for their own designs	• Communicate their ideas through detailed labelled drawings • Develop a design specification • Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways • Plan the order of their work, choosing appropriate materials, tools and techniques
	Make	• Begin to select tools and materials; use vocabulary to name and describe them • Measure, cut and score with some accuracy • Assemble, join and combine materials in order to make a product • Cut, shape and join fabric to make a simple garment. Use basic sewing techniques	• Select appropriate tools and techniques for making their product • Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques • Join and combine materials and components accurately in temporary and permanent ways • Sew using a range of different stitches, weave and knit	• Select appropriate tools, materials, components and techniques • Assemble components make working models • Construct products using permanent joining techniques • Make modifications as they go along • Pin, sew and stitch materials together create a quality product

		• Choose and use appropriate finishing techniques	• Measure, tape or pin, cut and join fabric with some accuracy •Use simple graphical communication techniques	
	Evaluate	• Evaluate against their design criteria • Evaluate their products as they are developed, identifying strengths and possible changes they might make • Talk about their ideas, saying what they like and dislike about them	• Evaluate their work both during and at the end of the assignment • Evaluate their products carrying out appropriate tests • Evaluate and suggest ways that their product could be improved	• Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests • Record their evaluations using drawings with labels • Evaluate against their original criteria and suggest ways that their product could be improved
	Food and Nutrition	• Develop a food vocabulary using taste, smell, texture and feel. • Group familiar food products e.g. fruit and vegetables. • Explain where food comes from. • Cut, peel, grate, chop a range of ingredients • Understand the need for a variety of foods in a diet. • Measure and weigh food items, non-statutory measures e.g. spoons, cups.	• Develop sensory vocabulary/knowledge using, smell, taste, texture and feel. • Analyse the taste, texture, smell and appearance of a range of foods. • Follow instructions/recipes. • Join and combine a range of ingredients. • Find out which fruit, vegetables and other foods are grown in countries/continents	• Prepare food products taking into account the properties of ingredients and sensory characteristics. • Weigh and measure using scales. • Select and prepare foods for a particular purpose. • Show awareness of a healthy diet e.g. the eatwell plate. • Use a range of cooking techniques. • Know where and how ingredients are grown and processed.
	Textiles	• Cut out shapes which have been created by drawing round a template onto the fabric.	• Understand seam allowance. • Join fabrics using running stitch, over sewing, blanket stitch.	• Create 3D products using patterns pieces and seam allowance. • Understand pattern layout.

		• Join fabrics by using e.g. running stitch, glue, staples, over sewing, tape. • Decorate fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons. • Colour fabrics using a range of techniques e.g. printing, painting.	• Prototype a product and use it to make a pattern • Explore strengthening and stiffening of fabrics. • Explore fastenings and recreate some. • Sew on buttons and make loops. • Use appropriate decoration techniques	• Decorate textiles appropriately i.e. tie dye (often before joining components). • Pin and tack fabric pieces together. • Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision). • Combine fabrics to create more useful properties.
	Structures	• Join appropriately for different materials and situations e.g. glue, tape. • Mark out materials to be cut using a template	• Develop vocabulary related to the project. • Create shell or frame structures. • Strengthen frames with diagonal struts. • Make structures more stable by giving them a wide base. • Measure and mark square section, strip and dowel accurately to 1cm.	• Use the correct terminology for tools materials and processes. • Use bradawl to mark hole positions. • Use hand drill to drill tight and loose fit holes. • Cut strip wood, dowel, square section wood accurately to 1mm. • Join materials using appropriate methods. • Stiffen and reinforce complex structures.
	Moving mechanics	• Join appropriately for different materials and situations e.g. glue, tape. • Mark out materials to be cut using a template. • Experiment with levers, paper fasteners, sliders and split pins to make a simple moving toy/artefact.	• Develop vocabulary related to the project. • Use mechanical systems such as pneumatics • Incorporate a circuit into a model. • Use electrical systems such as bulbs and motors.	• Develop a technical vocabulary appropriate to the project. • Use mechanical systems such as cams, pulleys and gears. • Use electrical systems such as motors, bulbs, switches and/or buzzers.

		• Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels.		