

Design & Technology Progression



Designing and Evaluating

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NC Objectives	<p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;</p> <p>Share their creations, explaining the process they have used;</p>	<p>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.</p> <p>Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.</p>		<p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p>			
Design	<p>Design purposeful models and creations using jottings.</p>	<p>Use pictures and words to convey what they plan to make.</p> <p>Use pictures to help develop ideas.</p> <p>Try out some ideas before making.</p>	<p>Propose more than 1 idea for a product and choose the make the most appropriate.</p> <p>Use drawings and words to record ideas as they develop them.</p>	<p>Develop more than 1 design for a product or adapt an initial design to make it fit for purpose.</p> <p>Think ahead about the process they will need to follow and decide upon tools and materials.</p>	<p>Develop more than 1 design for a product or adapt an initial design to make it fit for purpose, annotating drawings with their thought processes.</p> <p>Think ahead about the process they will need to follow and decide upon tools and materials.</p>	<p>Record a range of ideas using annotated diagrams, cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided design.</p> <p>Sketch and model alternative ideas.</p> <p>Decide which design idea to develop.</p>	<p>Record a range of ideas using annotated diagrams, cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided design.</p> <p>Sketch and model alternative ideas.</p> <p>Decide which design idea to develop.</p> <p>Plan the sequence of work and develop step by step plans which someone else could follow to make an intended product.</p>
Evaluate	<p>Begin to generate, develop, model and communicate ideas by talking and drawing.</p> <p>Begin to say what they like and dislike about a product.</p>	<p>Explore and evaluate existing products and say who might use them.</p> <p>Say what they like and dislike about a product.</p> <p>Make simple judgements about their products</p>	<p>Explore and evaluate existing products, e.g. what materials they are made from, how they work and how or where they might be used.</p>	<p>Explore existing products and explain how it is made for purpose.</p> <p>Evaluate their ideas and products against their own design criteria.</p>	<p>Explore existing products and discuss strengths and any drawbacks.</p> <p>Evaluate their ideas and products against own design criteria and consider how they could</p>	<p>Analyse a range of existing products and consider how it may have developed over time.</p> <p>Evaluate their ideas and products against their own design criteria and</p>	<p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of</p>



		<p>against the design criteria.</p>	<p>Evaluate their ideas and products against design criteria.</p> <p>Suggest how their product could be improved.</p>		<p>adapt their product to fit the criteria more closely.</p>	<p>consider the views of others to improve their work.</p>	<p>others to improve their work.</p> <p>Consider how they would improve their product reflecting on existing work.</p>
<p>Vocabulary</p>	<p>Design, function, use, products</p>	<p>design, purpose, function, appealing, products, users, criteria, generate, develop, model, communicate, ideas, templates, mock-ups, technology, explore, evaluate, existing products</p>	<p>user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing</p>	<p>evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch</p>	<p>design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype</p>	<p>function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype</p>	



Cooking and Nutrition

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NC Objectives	Understanding the importance of healthy food choices.	Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.		Understand and apply the principles of a healthy and varied diet. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.			
Knowledge	Name some foods that come from plants and animals. Identifies some foods as healthy and unhealthy. Understand the need for a variety of food in our diet.	Understand that all food comes from plants and animals. Name and group a range of fruit and vegetables. Understand that everyone should eat at least 5 portions of fruit and vegetables a day to stay healthy.	Understand that all food has to be reared, grown or caught. Name and sort foods into the 5 groups.	Name a range of food that is farmed, grown and caught and begin to understand where (UK, overseas imports or both) Understand that a healthy diet about variety and balance, e.g. The Eatwell Plate.	Understand where food is farmed, grown and caught, in the UK, Europe and the wider world, and how this has changed over time. Understand how food and drink provide energy for the human body.	Understand how food is processed. Understand that foods and drinks are made of seven major classes of nutrients. Understand the factors that can affect the required diet, e.g. gender.	Understand how seasons may affect the food available. Understand how diet effects the body in a range of ways, both positively and negatively, including illness.
Skills	Describe the look and taste of foods, e.g. size, shape, colour. Use basic techniques with support, such as chopping, peeling and grating. Begin to measure and weigh ingredients using non-standard measures, e.g. cups and spoons. Understand basic safety and hygiene.	Describe the look, taste, texture and smell of foods, e.g. size, shape, colour. Use basic techniques with support, such as chopping, peeling and grating. Measure and weigh ingredients using non-standard measures, e.g. cups and spoons. Understand basic safety and hygiene.	Describe and group the look, taste, texture and smell of foods. Use basic techniques, such as peeling, grating and chopping, with increasing independence. Measure and weigh ingredients using non-standard measures and standard measures to labelled increments. Understand how to prepare, and cook with support, some simple recipes safely and hygienically.	Compare the taste, texture and smell of foods, e.g. bitterer, less crumbly. Use a range of techniques, such as slicing, mixing, baking, spreading and kneading. Measure and weigh ingredients to the nearest increment, with some support. Understand how to use a heat source to cook some savoury recipes safely and hygienically.	Use a range of vocabulary to describe and compare foods, e.g. acidic, tart, pungent. Use a wider range of techniques, such as cubing, creaming, melting, boiling and simmering. Measure and weigh ingredients to the nearest increment. Understand how to prepare and cook a range of savoury recipes safely and hygienically.	Use a wider range of vocabulary to describe the aroma of food, e.g. heady, aromatic. Understand which techniques to use for certain ingredients and recipes. Measure and weigh ingredients on a range of scales. Understand how to prepare and cook a wider range of savoury recipes safely and hygienically.	Understand and justify which techniques to use for certain ingredients and recipes. Prepare and cook a wide range of hot and cold recipes safely and hygienically, taking into account the properties of ingredients and sensory characteristics.
Vocabulary	fruit, vegetable, ingredients, healthy, look, taste, colour, size, shape, peeling, chopping, grating, measure, weigh, non-standard, safety, hygiene, techniques	fruit, vegetable, healthy, portion, look, texture, taste, smell, size, shape, colour, grating, peeling, chopping, ingredients, techniques, measure, weigh, safety, hygiene, non-standard	farmed, reared, caught, grown, standard measures, labelled increments, prepare, cook, recipe, consistency, heat source, sweet, umami, astringent, savoury, livestock	diet, variety, protein, carbohydrate, dairy, fat, vitamin, mineral, moist, crumbly, greasy, creamy, mushy, crunchy, slicing, mixing, baking, kneading, spreading, increment, cross-contamination	raw, starchy, stodgy, cubing, creaming, melting, boiling, simmering See supporting document with extensive list of words to describe taste and smell.	perishable, organic, free-range, unrefined	seasonality, sensory characteristics



Textiles

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NC Objectives	Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;	Select from and use a range of tools and equipment to perform practical tasks [e.g. cutting, joining, finishing]. Select from and use a wide range of materials and components according to their characteristic.		Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities.			
Knowledge	Understand that different media can be combined to create new effects.	Begin to identify different fabrics and describe their properties.	Identify different fabrics and describe their properties.	Identify a wide range of natural and synthetic fabrics and describe their properties.	Compare a wide range of natural and synthetic fabrics and describe their properties.	Describe the uses of different fabrics and begin to choose fabrics themselves.	Choose fabrics to use for their products and justify their choices.
Skills	Experiment to create different textures. Manipulates materials to achieve a planned effect. Constructs with a purpose in mind, using a variety of resources. Uses simple tools and techniques competently and appropriately. Selects appropriate resources and adapts work where necessary. Selects tools and techniques needed to shape, assemble and join materials they are using.	Use pre-cut fabrics to make products. Join fabrics using glue, tape, staples or a simple running stitch with pre-made holes. Thread a large needle and tie a knot in the end of the thread, with support. Understand the process of weaving and explore some techniques using a loom. Use glue to decorate fabrics, e.g. buttons, beads, sequins. Colour fabrics using a range of techniques, e.g. fabric pens.	Cut out shapes that have been created by drawing around a given template onto the fabric. Join fabrics using staples, a simple running stitch, baste stitch or an over stitch to create a seam. Thread a large needle and tie a knot, mostly independently. Use weaving techniques to make patterns. Use glue to decorate fabrics to create a simple pattern. Colour fabrics using a range of techniques e.g. fabric paints, printing and painting.	Cut out shapes that have been created by drawing around a template they have created onto the fabric. Join fabrics using running stitch, over stitch or back stitch and compare techniques. Thread a large needle and tie a knot independently. Change and modify threads and fabrics, knotting, fraying, fringing, pulling threads, twisting, plaiting. Use glue and a simple stitch to decorate fabrics.	Join fabrics using a range of stitches, e.g. back, ladder, cross, and compare techniques. Begin to thread smaller needles independently. Pin and tack fabric pieces together before sewing. Name and use a range of sewing tools, e.g. measuring tape, pin cushion, thimble. Add simple decorations using needle and thread, e.g. buttons, sequins. Explore fastenings, e.g. sew on buttons and make loops.	Create prototypes and discuss the strengths and areas to improve. Join fabrics using a wider range of stitches, e.g. zigzag, blanket, and compare techniques. Thread a range of needles independently. Use embroidery techniques to decorate fabrics. Understand seam allowance. Understand pattern layout.	Create prototypes and use them to improve designs. Join fabrics using a wide range of stitches and justify their choices. Decorate textiles appropriately often before joining components. Identify and use more complicated decoration techniques, e.g. appliqué, embroidery, pleats.
Vocabulary	stick, cut, spread, measure, count, pattern, felt, calico, Binca	Binca, decorate, fabric, join, knot, loom, needle, stitch, thread, weaving	durability, dye, garment, insulation, seam, slack, stuffing, taut, warp, weft, yarn	biodegradable, bobbin/spool, breathable, faux, natural, plaiting, ply, synthetic	hypoallergenic, pin cushion, seam, seam ripper, shedding, tack, thimble	awl, bias tape, binding, embroidery, pinking shears, prototype	eyelet/grommet, inseam, interfacing, bolt, crewel, selvage, pleat, ruffle, smocking



Construction

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NC Objectives	Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;	Select from and use a range of tools and equipment to perform practical tasks [e.g. joining, finishing]. Select from and use a wide range of materials and components according to their characteristic. Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms [e.g. levers, sliders, wheels and axles], in their products.		Select from and use a wider range of tools and equipment to perform practical tasks [e.g. cutting, shaping, joining and finishing], accurately. Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products [e.g. gears, pulleys, cams, levers and linkages]. Understand and use electrical systems in their products [e.g. series circuits incorporating switches, bulbs, buzzers and motors]. Apply their understanding of computing to program, monitor and control their products.			
Knowledge	Understand that different media can be combined to create new effects.	Begin to understand and give some examples of simple machines, e.g. levers, wheel and axles, and screws.	Understand and give examples of simple machines, e.g. pulleys, inclined planes and wedges.	Understand how mechanical levers and linkages work and how they are used in everyday life.	Understand how gears, pulleys and pulleys work and how they are used in everyday life.	Understand how electrical systems can enhance products and know how this is used in everyday life. Understand how cams work.	Understand how computer programming can enhance products and know how this is used in everyday life. Understand how cams work.
Skills	<p>Experiment to create different textures.</p> <p>Manipulates materials to achieve a planned effect.</p> <p>Constructs with a purpose in mind, using a variety of resources.</p> <p>Uses simple tools and techniques competently and appropriately.</p> <p>Selects appropriate resources and adapts work where necessary.</p> <p>Selects tools and techniques needed to shape, assemble and join materials they are using.</p>	<p>Build simple structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Talk about and start to understand the simple working characteristics of materials and components.</p> <p>Explore and create products using mechanisms, such as levers and sliders.</p> <p>Know how to join a range of materials: glue, tape, staples.</p> <p>Finish off products so they resemble the intention.</p>	<p>Build simple structures, and explain how they have made them stronger, stiffer and more stable.</p> <p>Talk about and understand the simple working characteristics of materials and components.</p> <p>Explore and create products using mechanisms, such as levers, sliders, axels and wheels.</p> <p>Choose how to join a range of materials and justify choices: types of glue, tape, staples.</p> <p>Finish off products using a range of techniques.</p>	<p>Understand that materials have both functional properties and aesthetic qualities.</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products.</p> <p>Understand and demonstrate how mechanical systems have an input and output process.</p> <p>Explain how mechanical systems such as levers and linkages create movement.</p>	<p>Understand that materials have both functional properties and aesthetic qualities.</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products.</p> <p>Understand and demonstrate how mechanical systems have an input and output process.</p> <p>Explain how mechanical systems such as gears, pulleys and cams create movement.</p>	<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products.</p> <p>Understand and demonstrate that mechanical and electrical systems have an input, process and output.</p> <p>Apply their understanding of computing to program, monitor and control a product.</p> <p>Use a wider range of tools to prepare and make products, with</p>	<p>Use computer programming to control their products to achieve a desired outcome.</p> <p>Understand and demonstrate how mechanical and electrical systems have an input and output process.</p> <p>Make and represent simple electrical circuits, such as a series and parallel, and components to create functional products.</p> <p>Use a wider range of tools to prepare and make products, mostly independently, including power tools.</p>



					Use a wider range of tools to prepare and make products.	support, including power tools.	
Vocabulary	Scissors, texture, tool, join, assemble, product.	absorbent, axel, base, bendy, hard, join, rough, smooth, soft, stable, stiff, strong, structure, waterproof	aesthetic, fulcrum, functional, guide, input, oscillation, output, pivot, reflective, reinforce	annotate, cog, drawback, drive belt, G clamp, gear, mechanism, pulley, sandpaper, try square	cam, chuck, circuit, conductor, follower, guard, plane, slider, trigger		