

Design Technology Progression Map - 2024 to 25 - (detailing links to National Curriculum and Tier 3 Vocabulary)

Year Group	Autumn	Spring	Summer
	All About Me (Aut 1) My Place in the World (Aut 2)	Materials Matter (Spr 1) Habitats - Where do animals live? (Spr 2)	Farm to Fork (Sum 1) Once Upon a TimeLong Ago (Sum 2)
<p>EYFS</p> <p>Concepts: Investigates, disassemble, evaluate. Design, Make, Evaluate Technical Knowledge (including food)</p> <p>Categories: Investigate and analyse (IA) Observational drawing (OD)</p> <p>Communicating design (including CAD) (CD) Choosing tools and equipment (CTE) Selecting materials (SM) Using tools and equipment (UTE) Evaluation (E)</p> <p>Structures (S) Mechanical systems (MS) Food Technology (FT) Electrical systems (ES)</p>	<p>Investigate, disassemble, evaluate. Investigate how to thread, pour, stir in a range of mediums.</p> <p>Design, Make, Evaluate - Construct objects with a specific purpose e.g. construct with duplo, wooden blocks - Select tools for a specific purpose e.g. rolling play doh, cutting paper, to achieve products of increasingly complexity e.g. adding a ladder made of straws onto a painting of a fire engine - Use tools for a specific purpose e.g. scissors for cutting, rolling pin to make ball flat. hammer to knock golf tee into play doh - Explore manipulation of different materials e.g. play doh - Explore pouring, stirring, scooping, misusing within continuous provision - water, sand, when pumpkin smashing etc</p> <p>Technical Knowledge (including food) (also refer to substantive knowledge) - Know how to wash their hands independently before cooking activity. - Follow steps to make currant buns, pizza and bread including how to weigh ingredients - Know the vocabulary associated with different kitchen utensils e.g. chopping (knife), scooping (spoon), stirring (spoon) - Make healthy food choices within the classroom - Develop skills needed to use a knife and fork</p>	<p>Investigate, disassemble, evaluate Explore disassembling 3d products into 2d nets Investigate objects that float and sink, evaluate what materials the objects are made from.</p> <p>Design, Make, Evaluate - Construct objects with a specific purpose e.g. construct a vehicle with duplo, wooden blocks. Describe if their product matches what they wanted to achieve (evaluation) Design and make a bug hotel Select tools for a specific purpose e.g. rolling play doh, cutting paper, to achieve products of increasingly complexity - Use tools for a specific purpose e.g. scissors for cutting, rolling pin to make ball flat. hammer to knock big nails into soft block of wood - Manipulation of different materials such as plasticine, sheet materials such as card into different shapes.</p> <p>Technical knowledge (including food) (also refer to substantive knowledge) - Know the vocabulary associated with choosing a material for specific purpose. e.g. strong, flat, rigid - Know how to use tools to stir, mix, pour and blend. - Know how to use a range of tools, e.g. scissors, hole punch, stapler, woodworking tools, rolling pins, pastry cutters.</p>	<p>Investigate, disassemble, evaluate Investigate and explore the chairs in Goldilocks and the Three Bears Explore mechanical equipment for children to experience wind-up toys o pulleys o sets of cogs with pegs and boards.</p> <p>Design, Make, Evaluate - Construct objects with an increasing range of . Describe if their product matches what they wanted to achieve (evaluation) - Construct increasingly complex 2D pictures and patterns with these 3D resources - Design and build patterns using pattern blocks, tangrams, building blocks and magnetic construction tiles, as well as found materials. - Describe what their product is for e.g. a garage for their cars, a fruit kebab for Goldilocks - Use different forms of construction kits should enable children to build towers, walls, frameworks and shell structures. - Children improve their construction for a purpose e.g. how they can stop their structures from falling over and how to make them stronger. - Construction materials should sometimes include moving parts such as wheels, levers and hinges. - Construct a bird box with adult support</p>
Development Matters	<p>Personal, Social and Emotional Development (3-4 years) - Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen, or one which is suggested to them. Manage their own needs.</p> <p>Physical Development (3-4 years) - Choose the right resources to carry out their own plan. For example, choosing a spade to enlarge a small hole they dug with a trowel. - Use one-handed tools and equipment, for example, making snips in paper with scissors.</p> <p>Reception - Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.</p>	<p>Mathematics (3-4 years) - Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. - Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. • Combine shapes to make new ones - an arch, a bigger triangle etc. - Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc.</p> <p>Understanding the World - Use all their senses in hands on exploration of natural materials. - Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. Explore how things work. - Explore and talk about different forces they can feel. - Talk about the differences between materials and changes they notice.</p>	<p>Mathematics Reception - Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • -Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. - Continue, copy and create repeating patterns. - Compare length, weight and capacity.</p> <p>Understanding the World Reception - Explore the natural world around the.</p> <p>Expressive Arts and Design Reception Return to and build on their previous learning, refining ideas and developing their ability to represent them. - Create collaboratively, sharing ideas, resources and skills.</p>
Tier 3 Vocabulary	weigh, scales, clean, hygiene, construct, build, tool, select, cutlery, safely, pattern, repeat, stirring, chopping, scooping	2D and 3D shape, combine, force, float, sink, density, surface, flat, strong, rigid, stir, mix, pour, blend, design, material, plan, evaluate, product	tangrams, frameworks, structure, stronger, moving part, lever, hinge, magnetic, float, sink
Categories	IA, OD, CD, CTE, SM, UTE, FT	IA, OD, CD, CTE, SM, UTE,	IA, OD, CD, CTE, SM, UTE, S

Year Group	Autumn	Spring	Summer
Year 1	<p>Concepts: Investigate, disassemble, evaluate. Design, Make, Evaluate</p> <p>Technical Knowledge (including food)</p>		
	<p>Cooking and Nutrition</p> <p>Investigate, disassemble and evaluate different fruit salads</p> <p>Preparing Fruit and Vegetables</p> <p>Fruit Salad</p>	<p>Mechanisms</p> <p>Levers and Sliders</p> <p>Design, make and evaluate sliders and levers for the Great Fire of London</p>	<p>Structures</p> <p>Free Standing Structures (class based)</p> <p>Design, make and evaluate a strong chair for Baby Bear (class based linking to writing across the curriculum)</p>
<p>National Curriculum</p> <p>Concepts: Investigates, disassemble, evaluate. Design, Make, Evaluate</p> <p>Technical Knowledge (including food)</p> <p>Categories:</p> <ul style="list-style-type: none"> - Investigate and analyse (IA) - Observational drawing (OD) - - Communicating design (including CAD) (CD) - Choosing tools and equipment (CTE) - Selecting materials (SM) - Using tools and equipment (UTE) - Evaluation (E) - - Structures (S) - Mechanical systems (MS) - Food Technology (FT) - Electrical systems (ES) - 	<p>When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none"> - 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, <p>Make</p> <ul style="list-style-type: none"> - select from and use a range of tools and equipment to perform practical tasks - select from and use a wide range of ingredients, according to their characteristics <p>Evaluate</p> <ul style="list-style-type: none"> - explore and evaluate a range of existing products - evaluate their ideas and products against design criteria <p>Cooking and Nutrition</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - use the basic principles of a healthy and varied diet to prepare dishes - understand where food comes from. 	<p>When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none"> - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology <p>Make</p> <ul style="list-style-type: none"> - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] <p>Evaluate</p> <ul style="list-style-type: none"> - explore and evaluate a range of existing products - evaluate their ideas and products against design criteria <p>Technical knowledge</p> <ul style="list-style-type: none"> - explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. 	<p>When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none"> - design purposeful, functional, appealing products for themselves and other users based on design criteria <p>Make</p> <ul style="list-style-type: none"> - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] <p>Evaluate</p> <ul style="list-style-type: none"> - explore and evaluate a range of existing products - evaluate their ideas and products against design criteria <p>Technical knowledge</p> <ul style="list-style-type: none"> - build structures, exploring how they can be made stronger, stiffer and more stable
Tier 2 and 3 Vocabulary	<p>origin, organic, balanced diet, nutrients hygiene, prevent, preparation, produce, skin, peel, pith, flesh, pips, stones, design, evaluate, chopping technique</p>	<p>mechanism, pivot, rigid, flap, slider, lever, slot, guide or bridge, assemble, disassemble, design, product,</p>	<p>freestanding structures, frame structure, shell structure, stability, buttress, brick bonding, prototype</p>
Categories	IA, CD, CTE, E, FT	IA, OD, CD, CTE, SM, UTE, MS	IA, OD, CD, CTE, SM, UTE, S

Year Group	Autumn	Spring	Summer
Year 2	Concepts: Investigate, disassemble, evaluate. Design, Make, Evaluate		
	Textiles Templates and joining techniques Christmas Finger Puppets (class based for the Christmas Fair)	Mechanisms Wheels and axles Moon Buggies	Cooking and Nutrition Preparing Fruit and Vegetables Healthy Packed Lunches - design, make, evaluate a bread based product with a filling
National Curriculum Concepts: Investigates, disassemble, evaluate. Design, Make, Evaluate Technical Knowledge (including food) Categories: - Investigate and analyse (IA) - Observational drawing (OD) - Communicating design (including CAD) (CD) - Choosing tools and equipment (CTE) - Selecting materials (SM) - Using tools and equipment (UTE) - Evaluation (E) Structures (S) - Mechanical systems (MS) - Food Technology (FT) - Electrical systems (ES)	When designing and making, pupils should be taught to: 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 textiles according to their characteristics Evaluate - evaluate their ideas and products against design criteria	When designing and making, pupils should be taught to: Design - 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, according to their characteristics Evaluate - explore and evaluate a range of existing products - evaluate their ideas and products against design criteria Technical knowledge - explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	When designing and making, pupils should be taught to: 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, Make - select from and use a range of tools and equipment to perform practical tasks - select from and use a wide range of ingredients, according to their characteristics Evaluate - explore and evaluate a range of existing products - evaluate their ideas and products against design criteria Cooking and Nutrition Pupils should be taught to: Key stage 1 - use the basic principles of a healthy and varied diet to prepare dishes - understand where food comes from.
Tier 2 and 3 Vocabulary	appliqué, design brief, success criteria, embroidery, evaluate, fray, stocking, prototype, seam, sew, template	design brief, success criteria, designer, purpose, function, components, shaping, joining, stability, equipment, axle, axle holder, chassis, friction, dowel, fixings, mechanism, terrain,	appearance, texture, sensory evaluation, peel, chop, slice, grate, spread, apple corer, strawberry huller
Categories	IA, OD, CD, CTE, SM, UTE, S	IA, OD, CD, CTE, SM, UTE, MS	IA, OD, CD, CTE, SM, UTE, FT

Year Group	Autumn	Spring	Summer
Year 3	Concepts: Investigate, disassemble, evaluate. Design, Make, Evaluate Technical Knowledge (including food)		
	Structures Shell structures using CAD (introduce 2025 to 26) Picture Frames (2024 to25)	Mechanical Systems (class based in literacy and link to writing across the curriculum) Pneumatics	Cooking and Nutrition Celebrating Culture and Seasonality - Dips and Dippers
National Curriculum Concepts: Investigates, disassemble, evaluate. Design, Make, Evaluate Technical Knowledge (including food) Categories: Investigate and analyse (IA) Observational drawing (OD) Communicating design (including CAD) (CD) Choosing tools and equipment (CTE) Selecting materials (SM) Using tools and equipment (UTE) Evaluation (E) Structures (S) Mechanical systems (MS) Food Technology (FT) Electrical systems (ES)	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes , pattern pieces and computer-aided design Make - 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, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate -investigate and analyse a range of existing products - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Technical knowledge - apply their understanding of how to strengthen, stiffen and reinforce more complex structures	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes Make - 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, including construction materials, according to their functional properties and aesthetic qualities Evaluate - investigate and analyse a range of existing products - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work - understand how key events and individuals in design and technology have helped shape the world Technical knowledge -- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches Make - 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, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate - investigate and analyse a range of existing products - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Pupils should be taught to: Technical Knowledge - 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.
Tier 2 and 3 Vocabulary	Computer aided design (CAD), shell structure, edge, face, vertex, font, net, cuboid, prism	compressed, input, output, pivot, lever, pneumatic, hydraulic, pressure, inflate, deflate, syringe, system	seasonality, traditional, availability, culture, tradition, food miles, reared, processed
Categories	IA, OD, CD, CTE, SM, UTE, E,S	IA, OD, CD, CTE, SM, UTE, E,MS	IA, OD, CD, CTE, SM, UTE, E,FT

Year Group	Autumn	Spring	Summer
Year 4	Concepts: Investigate, disassemble, evaluate. Design, Make, Evaluate Technical Knowledge (including food)		
	Cooking and Nutrition Healthy and Varied Diet - Pizzas	Electrical Systems Simple programming and control (class based) Textiles: 2D shape to 3D product (PPA team deliver)	Structures Shell Structures (class based linked to measurement in mathematics)
National Curriculum Concepts: Investigates, disassemble, evaluate. Design, Make, Evaluate Technical Knowledge (including food) Categories: - Investigate and analyse (IA) - Observational drawing (OD) - Communicating design (including CAD) (CD) - Choosing tools and equipment (CTE) - Selecting materials (SM) - Using tools and equipment (UTE) - Evaluation (E) - Structures (S) - Mechanical systems (MS) - Food Technology (FT) - Electrical systems (ES)	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and Make - 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, including construction materials, textiles and ingredients , according to their functional properties and aesthetic qualities Evaluate - investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work - understand how key events and individuals in design and technology have helped shape the world Technical knowledge - 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.	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make - 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, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate - investigate and analyse a range of existing products - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work - Technical knowledge --- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make - 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, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate - investigate and analyse a range of existing products - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work - understand how key events and individuals in design and technology have helped shape the world Technical knowledge - apply their understanding of how to strengthen, stiffen and reinforce more complex structures
Tier 2 and 3 Vocabulary	rubbing in, knead, dough, germ, yeast, unleavened bread	Electrical systems - program, micro-controller, light emitting diode (LED), system, output devices, input devices, process Textiles - appliqué, patterns. templates, seam, seam allowance, prototype, aesthetics, finishing	cuboid, edge, face, font, net, prism, scoring, shell structure, vertex
Categories	IA, OD, CD, CTE, SM, UTE E, FT	IA, OD, CD, CTE, SM, UTE, E, ES,	IA, OD, CD, CTE, SM, UTE, E,S

Year Group	Autumn	Spring	Summer
Year 5	Concepts: Investigate, disassemble, evaluate. Design, Make, Evaluate Technical Knowledge (including food)		
	Mechanisms Levers and Linkages (class based) Festive card with moving parts	Mechanical Systems Pulleys and Gears Castles	Mechanical Systems Cams (2024 to 25)
National Curriculum Concepts: Investigates, disassemble, evaluate. Design, Make, Evaluate Technical Knowledge (including food) Categories: - Investigate and analyse (IA) - Observational drawing (OD) - Communicating design (including CAD) (CD) - Choosing tools and equipment (CTE) - Selecting materials (SM) - Using tools and equipment (UTE) - Evaluation (E) - Structures (S) - Mechanical systems (MS) - Food Technology (FT) - Electrical systems (ES)	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes Make - 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, including construction materials, according to their functional properties and aesthetic qualities Evaluate - investigate and analyse a range of existing products - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work - understand how key events and individuals in design and technology have helped shape the world Technical knowledge -- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes Make - 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, including construction materials, according to their functional properties and aesthetic qualities Evaluate - investigate and analyse a range of existing products - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work - understand how key events and individuals in design and technology have helped shape the world Technical knowledge -- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes Make - 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, including construction materials, according to their functional properties and aesthetic qualities Evaluate - investigate and analyse a range of existing products - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work - understand how key events and individuals in design and technology have helped shape the world Technical knowledge -- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]-
Tier 2 and 3 Vocabulary	mechanism, lever, linkage, slot, guide, bridge, loose pivot, fixed pivot, system	pulley, gear, drive belt, gearing up or down, mechanical systems, driver, follower, mesh, motor spindle	rotary motion, oscillating motion, reciprocating motion, cam, rollover, lever, slider, guide, spacer
Categories	IA, OD, CD, CTE, SM, UTE, MS	IA, OD, CD, CTE, SM, UTE, MS	IA, OD, CD, CTE, SM, UTE, MS

Year Group	Autumn	Spring	Summer
Year 6	Concepts: Investigate, disassemble, evaluate. Design, Make, Evaluate		
	Electrical Systems (class based linked to Science) More complex switches and circuits	Structures (Started 2024 to 25) Design and construct a bird hide	Textiles (class based) Autumn 2025 to 26 geography link - where do clothes travel from? Using computer aided design in textiles (2025 to 26) Textiles - sustainable sewing - 2024 to 25
National Curriculum Concepts: Investigates, disassemble, evaluate. Design, Make, Evaluate Technical Knowledge (including food) Categories: Investigate and analyse (IA) Observational drawing (OD) Communicating design (including CAD) (CD) Choosing tools and equipment (CTE) Selecting materials (SM) Using tools and equipment (UTE) Evaluation (E) Structures (S) Mechanical systems (MS) Food Technology (FT) Electrical systems (ES)	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion and computer-aided design Make - 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, including construction, according to their functional properties and aesthetic qualities Evaluate - investigate and analyse a range of existing products - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work - understand how key events and individuals in design and technology have helped shape the world Technical knowledge - understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] - apply their understanding of computing to program, monitor and control their products.	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make - 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, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate - investigate and analyse a range of existing products - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work - understand how key events and individuals in design and technology have helped shape the world Technical knowledge - apply their understanding of how to strengthen, stiffen and reinforce more complex structures	When designing and making, pupils should be taught to: Design - 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make - 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, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate - investigate and analyse a range of existing products - evaluate their ideas and products against their own design criteria and consider the views of others to improve their work - understand how key events and individuals in design and technology have helped shape the world Technical knowledge - apply their understanding of computing to program, monitor and control their products.
Tier 2 and 3 Vocabulary	series circuit, parallel circuit, reed switch, latching switch, micro switch, input device, output device, system, monitor, control, program, flowchart	frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent, strut, tension	computer aided design (CAD), computer aided manufacture (CAM), pattern, template, seam allowance, specification, tacking, working drawing
Categories	IA, OD, CD, CTE, SM, UTE, E, ES,	IA, OD, CD, CTE, SM, UTE, E, S,	IA, OD, CD, CTE, SM, UTE, E,

