DT Knowledge and Vocabulary Map Cycle A

	Theme	Knowledge	Vocabulary
YR – Annually The Design, Make and Evaluate, will be taught alongside other topics throughout the year. Take inspiration from design throughout history, will be taught alongside other topics throughout the year.	Design, Make and Evaluate. Take inspiration from design throughout history.	Design: • To know about and select appropriate resources. Make: Physical Development: • To develop their small motor skills so that they can use a range of tools competently, safely and confidently. ELG Fine Motor Skills: • To use a range of small tools, including scissors. ELG Creating with Materials: • To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • To share their creations, explaining the process they have used.	Use language of designing and making (design, plan, join, build, shape, longer, shorter, heavier etc.) Tools: Scissors

		• To know how to record experiences by drawing. Evaluate: • To use appropriate vocabulary to talk about the success of their product and suggest simple improvements. • To talk about simple models and inventions (such as bridges and towers) and use as inspiration to help develop their own ideas. Use language of designing and making (design, plan, join, build, shape, longer, shorter, heavier etc.) Tools: Scissors	
YR Autumn YR Spring	Design, Make and Evaluate. Take inspiration from design throughout history.	See Annual Knowledge **Key Knowledge:** • To know about and select appropriate resources. • To know some tools (e.g. scissors) and simple methods to join materials (e.g. glue)	Use language of designing and making (design, plan, join, build, shape, longer, shorter, heavier etc.) Tools: Scissors

YR Summer	Cooking and Nutrition	To include elements of Key Knowledge from the annual knowledge. **Key Knowledge:** • To know about ways to stay healthy including healthy foods.	Healthy Move Food

Y1/2 – Annually The Design, Make and Evaluate, will be taught alongside other topics throughout the year. Take inspiration from design throughout history, will be taught alongside other topics throughout the year.	Design, Make and Evaluate. Take inspiration from design throughout history.	**Key Knowledge:** **Design:** • To know and explain what their product is for, and how it will work • To know how to use pictures and words to plan a design. • To design a product following a design criteria. • To explain the purpose of a product, how it will work and how it will be suitable for the user. **Make:** • To know of a range of tools and choose the best tools and materials, explaining choices. • To know how to join materials/components together in different ways. • To know how to measure, mark out, cut and shape materials and components, with support. **Evaluate:**	Design, make, evaluate. Research, plan, join, assemble, tools, product, material, component, pieces, measure, mark out, decorate, finish

		• To describe what went well, thinking about design criteria and using appropriate vocabulary. • To know how to explore and evaluate existing products. • To know of design examples from a range of relevant contexts (for example, the home, school, history, playground and wider environment), and identify likes and dislikes.	
Y1/2 Autumn	Art focus this term		

Y1/2 Spring	Design, Make and Evaluate	See Annual Knowledge **Key Knowledge:** • To know and explain what they have designed and made, and why they have made certain decisions. • To identify the design, make and evaluation elements of what they have made.	Design, make, evaluate. Research, plan, join, assemble, tools, product, material, component, pieces, measure, mark out, decorate, finish

Y1/2 Summer	Cooking and Nutrition	**To include elements of Key Knowledge from the annual knowledge.** **Key Knowledge:** • To know why vegetables are important to our health and common methods of preparation: cut, peel or grate. • To know examples of a healthy eating and healthy dishes. • To know where a range of different foods come from.	fruit and vegetable names, names of equipment, sensory vocabulary: soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients, cut, peel, grate, measure, weigh, cook, healthy eating.

Y3/4 – Annually The Design, Make and Evaluate, will be taught alongside other topics throughout the year. Take inspiration from design throughout history,	Design, Make and Evaluate. Take inspiration from design throughout history.	**Design:** • To know research helps to inform design criteria and the design of products. • To know of and use a range of ways to communicate designs: discussion, annotated sketches, prototypes and pattern pieces.	Design, make, evaluate. Research, plan, design, sketches, annotated sketches, diagram, prototype, pattern, join, assemble, tools, product, material, component, pieces, measure, mark out, decorate, finish, designer, design criteria.

will be taught alongside other topics throughout the year.		**Make:** • To know and use a wider range of tools and explain their purpose. • To know how to join a wider range of materials/components together in different ways. • To know how to measure, mark out, cut and shape materials and components. **Evaluate and Improve:** • To explain why it is important to refine work and techniques as work progresses. • To know that products need to be fit for purpose and designed with particular individuals or groups in mind. • To know of existing designs and identify some of the great designers.	
Y3/4 Autumn	Art focus this term		

Y3/4 Spring	Electrical Systems	**To include elements of Key Knowledge from the annual knowledge.** **Key Knowledge:** • To know how to use an electrical circuit in their product. • To know how a switch works in a series circuit.	series circuit, fault, connection, toggle switch, push-to make switch, push to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device
Y3/4 Summer	Cooking and Nutrition	**To include elements of Key Knowledge from the annual knowledge.** **Key Knowledge:** • To know what is meant by the term balanced and identify the elements of a balanced diet or meal. • To know of a range of cooking and preparation methods.	name of products, names of equipment, utensils, techniques and ingredients, recipe, texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet,

Y5/6 - Annually The Design, Make and Evaluate, will be taught alongside other topics throughout the year. Take inspiration from design throughout history, will be taught alongside other topics throughout the year.	Design, Make and Evaluate. Take inspiration from design throughout history.	Design •To know that it is important to design products with the user in mind. •To know how cross-sectional and exploded diagrams, prototypes and computer aided designs can be used to generate, represent, model and communicate ideas. Make • To know the importance of products having a high-quality finish and suggest suitable tools, equipment and materials that could be used to achieve this in their own designs. • To know of great designers throughout history and combine elements in their own designs. Evaluate • To know how to evaluate ideas against their own design criteria and suggest improvements. • To know how to investigate and analyse existing products using appropriate technical vocabulary.	Design, make, evaluate. Research, plan, design, sketches, annotated sketches, diagram, prototype, pattern, join, assemble, tools, product, material, component, pieces, measure, mark out, decorate, finish, designer, design criteria.
Y5/6 Autumn	Art focus this term		

Y5/6 Spring	Electrical Systems	**To include elements of Key Knowledge from the annual knowledge.** **Key Knowledge:** • To know how to create circuits using electronics kits that employ a number of components (such as lights, bulbs and motors).	Switches, bulb, bulb holder, battery, battery holder, USB cable, wire, insulator, conductor, crocodile clip control, program, system, input device, output device, series circuit, parallel circuit.
Y5/6 Summer	Cooking and Nutrition	**To include elements of Key Knowledge from the annual knowledge.** **Key Knowledge:** • To know where and how a variety of ingredients are grown, reared, caught and processed and understand seasonality. • To know the importance of correct storage and handling of ingredients (using knowledge of micro-organisms) and apply this knowledge when preparing recipes.	ingredients, recipe, seasonality, yeast, dough, bran, flour, wholemeal, unleavened, baking spice, herbs , fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble

DT Knowledge and Vocabulary Map Cycle B

(Refer to the Design, Make and Evaluate section in Map Cycle A for annual knowledge)

	Theme	Knowledge	Vocabulary
YR Autumn	**Mechanisms**	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** Physical Development: • To develop their small motor skills so that they can use a range of tools competently, safely and confidently. ELG Fine Motor Skills: • To use a range of small tools, including scissors. ELG Creating with Materials: • To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Share their creations, explaining the process they have used.	move, twist, turn, tools, scissors, build

YR Spring	Textiles/Control	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** Textiles: • To know textiles can be joined with glue or thread. Control: • To control a Beebot using simple instructions (Links to Computing)	glue thread move right left steps
YR Summer	Materials and Structures	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** • To explore collections of materials with similar and/or different properties.	group collect
Y1/2 Autumn	Mechanisms	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** **Key Knowledge:** • To know how sliders and levers can create simple mechanisms. • To know how wheels and axles work together.	move, joint, up, down, force, lever, wheel, axle, forwards, backwards, pivot

Y1/2 Spring	Textiles/ Control	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** **Key Knowledge:** Textiles: • To know how to shape textiles with a template. • To know how to join textiles using running stitch. Control: • To know of and use simple code. (Links to Computing).	Textiles: joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish Control: move right left steps right turn left turn instructions algorithm

Y1/2 Summer	Materials and Structures	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** **Key Knowledge:** • To know how to use simple techniques to strengthen structures (e.g. drilling, screwing, gluing and nailing).	cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder
Y3/4 Autumn	Mechanisms	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** **Key Knowledge:** • To know scientific knowledge to describe how the transference of forces works in simple mechanisms (such as levers, winding mechanisms, pulleys and gears). • To know how to include a simple mechanism in their product.	mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating

Y3/4 Spring	Textiles/Control	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** **Key Knowledge:** Textiles • To understand the need for a seam allowance. • To know how to join textiles with appropriate stitching. Control: • To know how to write simple code to control and monitor models or products. (links to Computing)	Textiles: textile, fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance. Control: Control, monitor, code, bug, debug, algorithm, software. Vocabulary linked to maths: turns, angles, degrees, clockwise, anticlockwise, right, left.

Y3/4 Summer	Materials and Structures	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** **Key Knowledge:** • To know of simple methods that can be used to strengthen materials and structures (E.g. triangles provide stability in a structure).	shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision,
Y5/6 Autumn	Mechanisms	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** **Key Knowledge:** • To know how convert rotary motion to linear using cams and use in their own product.	pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded

			diagrams, mechanical system, electrical system, input, process, output
Y5/6 Spring	Textiles/ Control	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** **Key Knowledge:** Textiles: • To know objects (such as a cushion or a simple fabric toy) employ a seam allowance. • To know that textiles can be joined with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). Control: • To know how to use code to control and monitor models using software designed for this purpose. • To know how they could use code to control their own products. (links to Computing)	Textiles seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings Control: programming, algorithm, coding, debug, loops. functions. Vocabulary linked to maths: turns, angles, degrees, clockwise, anticlockwise, right, left

Y5/6 Summer	Materials and Structures	**To include elements of Key Knowledge from the annual knowledge outlined in Cycle A.** **Key Knowledge:** • To know a range of practical skills and tools are needed to create different products and structures (such as cutting, drilling, screwing, nailing, gluing, filing and sanding.) • To know of a range of methods and materials that can be used to strengthen, stiffen and reinforce more complex structures.	frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent