Curriculum Progression – Design Technology

	Reception (PD & EAD)	Year 1	Year 2	End of Key stage NC expectation	Year 3	Year 4	Year 5	Year 6	End of Key stage NC expectation
Design	I can select construction resources to create an intended idea for imaginative play. I can create items from stories and props for role play using a variety of materials. I can create a simple design idea based on existing products.	I can draw and label a simple sketch to show my design intention. I can create a design based on existing products. Through discussion, I can suggest ideas, develop my design ideas and explain how I plan to make my product. I can generate a design that meets set criteria for a target audience. I can design a purposeful, functional, appealing product. I can use ICT where appropriate to show my design intention.		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	I can draw and annotate sketches from different angles to show my design intention. I can use my analysis of existing products to inform my own design. I can make changes to my design based on feedback given. I can develop a clear plan for how I will make my product. I can use research to develop design criteria to meet an identified purpose. I can plan the equipment and materials I will need to create my product. I can design a functional, appealing product that is fit for purpose. I can use computer-aided design where appropriate to		I can draw annotated sketches, and cross-sectional and exploded diagrams to clearly show my design. I can research existing products and conduct market research and use my findings to inform a design specification. I can develop and make changes where necessary to a clear plan for how I will make my product. I can create more than one design idea to meet my design specification and select a final design based on my evaluation and feedback. I can design an innovative, functional, appealing product that is fit for purpose. I can use computer-aided design where appropriate to show an accurate design intention.		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

Curriculum Progression – Design Technology

				help show my design intention. I can test my design ideas through making simple prototypes when appropriate.	I can test my design ideas through creating prototypes and pattern pieces.	
Technical Knowledge	I can observe features of subjects and their positions. I can construct with a purpose, using techniques, tools and manipulating materials to achieve a planned effect.	I can suggest ways to make a product stronger, stiffer and more stable. I know what a mechanism is and the part that levers. pivots, wheels, axles and chassis play in them.	♣ 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.	I can suggest materials and techniques that could be used to strengthen and stabilise a structure. I know what a pneumatic system is and how they are used in products. I know what a series circuit is and the function of batteries, switches, bulbs, buzzers and motors.	I can suggest materials and techniques that could be used to strengthen and stabilise more complex structures. I know the difference between series and parallel circuits and the function of batteries, switches, bulbs, buzzers, motors and solar cells. I know how changes can be made to wheels, axles and chassis to impact the function of the product. I know how to use ICT to program, monitor and control products.	♣ apply their understanding of how to strengthen, stiffen and reinforce more complex structures ♣ understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] ♣ 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.

Curriculum Progression – Design Technology

Make	I can progress towards a more fluent style of moving, with developing control. I can develop small motor skills to use a range of tools competently, safely and confidently. I can use core muscle strength to achieve good posture when sitting at a table or sitting on the floor. I can experiment with a range of tools. I can experiment with a range of media, including pencil, collage, chalk and paint. I can use shapes and colours to represent an object.	I can explore how structures can be made stronger, stiffer and more stable. I can explore and construct a sliding mechanism, a lever and pivot mechanism and a wheel mechanism to create a moving picture. I can explore and construct a moving model with wheels, axles and chassis. I can cut and sew textiles. I can join materials effectively. I can use a range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing). I can select materials and components, including construction materials, textiles and ingredients, according to their characteristics.	♣ 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	I can use materials and techniques to strengthen and stabilise a structure. I can create a moving model using a pneumatic system. I can create a product with a complete circuit that includes either bulbs, buzzers or motors. I can use a wide range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing) accurately. I can select materials and components, including construction materials, textiles and ingredients, according to their functional and aesthetic qualities. I can follow a step-by-step plan, choosing the right equipment and materials. I can program my product using computing	I can use materials and techniques to strengthen and stabilise more complex structures. I can create movement in my product through transferring motion I can create a product with a complete circuit made from a range of electrical components, including bulbs, buzzers, motors, switches and solar cells. I can cut, sew, join and reinforce textiles using a range of different stitches. I can use pattern pieces to create a final product. I can hem, finish and decorate a textile product, considering its aesthetic qualities. I can explore and construct a more complex moving model with wheels, axles and chassis, making changes to improve the product's function.	♣ 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,

Curriculum Progression – Design Technology

	I can construct with a purpose, using techniques, tools and manipulating materials to achieve a planned effect.				I can program, monitor and control my product using computing.	
Evaluate	I can explore with colour and see what happens when I mix colours. I can share my creations, explaining the process they have used. I can return to and build on previous	I can evaluate my product against set design criteria, explaining strengths and weaknesses. I can explore and evaluate existing products and how they work.	♣ explore and evaluate a range of existing products ♣ evaluate their ideas and products against design criteria	I can evaluate my product against the design criteria I developed, explaining strengths and weaknesses. I can test my product in different ways to evaluate how fit it is for purpose. I can use feedback to evaluate my design before and during its creation.	I can evaluate my product against the design specification I developed, explaining strengths and weaknesses and potential adaptations.. I can seek evaluation from others through developing questionnaires and surveys and tests to be conducted. I can use feedback to evaluate and make changes	♣ 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

Curriculum Progression – Design Technology

	learning, refining ideas and develop my ability to represent them.			I can investigate and analyse a range of existing products, explaining how they would meet the design criteria. I can understand how key events and individuals in design and technology have helped shape the world.	to my design throughout the different stages of its development and creation. I can investigate and analyse a range of existing products through disassembly and explain how they would meet the design specification. I can understand how key events and individuals in design and technology have helped shape the world and apply some of the principles in my design.	
Food and Nutrition	I can create a simple design idea based on existing products. I can construct with a purpose, using techniques, tools and manipulating materials to achieve a planned effect. I can develop small motor skills to use a range of	I can test flavours, textures and colours of different foods. I can use the basic principles of a healthy and varied diet to prepare a dish. I can explain where different types of food come from. I can use cutting, grating and peeling to prepare fruit and vegetables. I can prepare food hygienically.	♣ use the basic principles of a healthy and varied diet to prepare dishes ♣ understand where food comes from.	I can test and compare flavours, textures and the appearance of different foods. I can explain why certain foods are in season at different times of the year and why it is good to eat seasonal food. I can include seasonal food in dishes I prepare. I can explain where and how a variety of ingredients are grown, reared, caught and processed.	I can test and compare flavours, textures and the appearance of different foods against my own set criteria. I can compare sweet and savoury dishes by their nutritional value. I can explain how cuisines from other countries have influenced what is eaten in Britain today.	♣ 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.

Curriculum Progression – Design Technology

	tools competently, safely and confidently. I can construct with a purpose, using techniques, tools and manipulating materials to achieve a planned effect. I can share my creations, explaining the process they have used. I can return to and build on previous learning, refining ideas and develop my ability to represent them.			I can use a range of cooking tools to cut, grate and peel fruit and vegetables in different ways. I can consider different food groups needed for a healthy, balanced diet when preparing a dish.	I can consider a range of flavours, textures and appearances to create a dish. I can create a dish through baking. I can measure out quantities of ingredients given in a recipe. I can combine ingredients through pouring, sieving, folding, whisking and stirring.	
Key Vocabulary		**Mechanisms:** Up, down, left, right, vertical, horizontal, slider, lever, pivot, fulcrum, wheel, mechanism, safety, design criteria, ferris wheel, pods, axle, axle holder, frame, rotates, masking tape, **Textiles:** fabric, join, template, pinning, gluing, stapling, running		**Digital World:** Smart wearables, product design, digital revolution, technology, analogue, digital, feature, function, digital world, micro :bit, **Food & Nutrition:** sift/sieve, fold, dough, flavour, texture, mix, appeal, budgeting, packaging,	**Structure:** Cladding, apparatus, playground, reinforce, construction, monkey bars, A-frame, climbing wall, seesaw, playhouse, swing, **Mechanical Systems :** axle, bench hook, clamp, component, dowel, finish, frame, function, linkage,	

Curriculum Progression – Design Technology

		stitch, blanket stich, safety pin, fabric glue, technique, **Food & Nutrition:** fruit, vegetables, stem, leaves, root, taste, texture, smell, appearance, slice, grate, blend, knife, balanced diet, ingredients, protein, sugar, flavour, food hygiene **Structures:** man-made, natural, properties, 2D shape, 3D shape, structure, test, strengthen, stabilse, adapt, pipe cleaners, straws,		**Electrical systems:** insulator, conductor, LED, battery, coin cell batteries, wire, switch, housing, reflector, circuit, bulb, split pin, paper clip, **Textiles:** fabric, running stitch, fastening, Velcro, press stud, zip, buckle, button, hook and eye, template, model, prototype, **Structures:** 3D shape, 2D net, crease, fold, tab, score, stability, strengthen, stiffen, adapt, facade, **Mechanical systems:** compressed, input, output, pivot, pneumatic tubing, balloon, hinge, syringe, housing	**Electrical systems:** backboard, battery, bulb, buzzer, circuit, conductor, insulator, copper, LED, magnetic field, pliers, series circuit, switch, **Food & Nutrition:** seasonal, seasons, climate, balanced diet, food groups, grown, caught, reared, processed, contamination, hygiene, recipe, soup, boil, simmer, blend, **Textiles:** fabric, running stitch, cross-stitch, applique, template, model, stuffed toy, prototype, pattern pieces	