

Curriculum Progression Map for Design and Technology



	<u>Autumn</u>		<u>Spring</u>		<u>Summer</u>	
EYFS Nursery	Skills	Knowledge	Skills	Knowledge	Skills	Knowledge
	<p>To know that they need to wash hands before eating.</p> <p>To place rubbish into correct bins (food/plastic)</p> <p>To use a knife to spread butter/jam</p> <p>To begin to use scissors with support to cut.</p> <p>To create their own flap with sellotape (supported)</p> <p>To build a stable tower.</p>	<p>To be able to recognise basic fruits and vegetables</p> <p>To understand that fruit and vegetables are good for you/healthy</p> <p>To understand safety implications when using scissors</p> <p>To be exposed to a variety of flap books</p>	<p>To understand the terms roll, mix, knead, press when playing with playdough</p> <p>To know the difference between some unhealthy and unhealthy foods</p> <p>To use construction materials to create stable structures for play (houses/towers/bridges)</p> <p>To create junk models using sellotape and glue to connect pieces.</p>	<p>To have knowledge that a recipe can create food – cakes etc – exposure to picture recipes during roleplay.</p> <p>To have knowledge of different things that they can create – exposure to pictures etc.</p>	<p>To begin to use a knife and fork with modelling and support.</p> <p>To talk about different food choices for dinner and understand that a meal should have a fruit, salad or vegetable.</p> <p>To create various structures to enhance their play using junk modelling or construction</p> <p>To explain their choices and seek support to problem solve with an adult.</p> <p>To use simple sewing cards</p>	<p>To have a knowledge of when to use a knife and fork</p> <p>To know the terms fruit, salad or vegetable</p>
	Vocabulary: banana, apple, orange, pear, carrot, peas, sweetcorn, sellotape, flap, tower, stable, spread,		Vocabulary: roll, mix, knead, press, unhealthy, healthy, tower, bridge, house, barn, connect, recipe		Vocabulary: fruit, salad, vegetable, cucumber, lettuce, knife, fork, choose, stronger,	
	<u>Autumn</u>		<u>Spring</u>		<u>Summer</u>	
EYFS Reception	Skills	Knowledge	Skills	Knowledge	Skills	Knowledge
	<p>To know that they need to wash hands before eating.</p> <p>To place rubbish into correct bins (food/plastic) and tidy their area, washing out milk cartons.</p>	<p>To be able to recognise basic fruits and vegetables</p> <p>To know the 5 a day rule for fruit and vegetables.</p>	<p>To use a grater</p> <p>To be able to sort salad, vegetables and fruits</p> <p>To cut food/playdough with a knife and fork using the saw motion</p>	<p>To explore a variety of moving books and toys.</p> <p>To understand healthy and unhealthy foods</p>	<p>To use knives/peelers to cut fruit and vegetables</p> <p>To follow a basic picture recipe to make biscuit/cake mix</p>	<p>To understand that instructions have an order</p> <p>To understand health and safety protocol with</p>

	<p>To begin to use a knife and fork correctly.</p> <p>To begin to use scissors to cut with increasing accuracy</p> <p>To connect two items with sellotape or glue</p> <p>To create junk models using a variety of joining techniques.</p>	<p>To understand safety implications when using scissors</p>	<p>To follow a basic recipe to make play dough, measure, mix, knead.</p> <p>To join two pieces of paper/card with a split pin</p> <p>To create stable structures in their play explaining why they have chosen certain objects.</p> <p>To explore and understand what would happen if there structure was unstable.</p> <p>To recognise what materials /objects would make their structure unstable.</p>		<p>To problem solve with their structures, improving design with support from an adult.</p> <p>To be able to explain why their structure is stable and say how they made it better.</p> <p>To create/sew simple felt minibests – holes on felt.</p> <p>To decorate their mini beast with buttons, sequences, gems etc.</p>	knives and peelers
	Vocabulary: banana, apple, orange, pear, satsuma, carrot, tomato, grapes, raisins, broccoli, peas, sweetcorn, scissors, sellotape, glue, safe, sharp, secure, stable		Vocabulary: salad, fruit, vegetable, cucumber, lettuce, pepper, stable, unstable, sort, soft, hard, base, measure, scoop, mix, knead,		Vocabulary: improve, knife, peeler, chopping board, whisk, recipe, order, change, alter,	
Year 1	Autumn 2 – Eating more fruit and vegetables (1.1) Pre-unit to 2.3, 4.3, 6.3,		Spring 2 – Moving mini beasts (1.2) Pre-unit to 2.1, 3.1, 5.2		Summer 2 – Stable structures (1.3) Pre-unit to 3.2,4.2,5.1,6.2	
	Skills	Knowledge	Skills	Knowledge	Skills	Knowledge
	<p>To use a peeler to peel fruit</p> <p>To use a grater</p> <p>To use a knife in different ways to cut fruit.</p> <p>To use adjectives to describe the taste, smell and texture of a variety of fruits and vegetables.</p> <p>To select the correct tool to perform a task</p> <p>To design, create and evaluate a design</p>	<p>To be able to name a variety of fruits and vegetables.</p> <p>To know that some fruits and vegetables need to be washed, cut, cored, peeled or grated before they can be eaten.</p> <p>To understand basic food hygiene, e.g. washing hands, tying long hair back and keeping surfaces clean.</p> <p>To understand the importance of fruit and</p>	<p>To make a sliding mechanism out of card.</p> <p>To use a pivot and lever mechanism using card and a split pin.</p> <p>To make a wheel mechanism using card and a split pin.</p> <p>To match a mechanism to the type of movement they produce.</p> <p>To design a moving minibest picture to include a variety of moving mechanisms.</p>	<p>To be able to explain what a pivot and lever are</p> <p>To have knowledge of a variety of mini beasts</p>	<p>To understand what the word ‘stable’ means.</p> <p>To make changes to the design of a stable structure to make it fit for purpose.</p> <p>To explore a range of materials and evaluate the usefulness of their properties for a particular project.</p> <p>To explore how to make stable structures that hold a given object.</p>	<p>To identify the features of toy garages.</p> <p>To understand what the word ‘stable’ means.</p> <p>To know some ways to make a structure more stable – larger</p>

	To create a basic picture recipe for their design.	vegetables as part of a healthy diet	To follow their design to create a moving minibeast picture for a particular purpose. To evaluate their finished moving minibeast picture by identifying things that worked well and things that could be improved.		To follow a design to make a stable structure. To evaluate their finished structure against a set of given criteria.	base – smaller top, type of material etc.
	Vocabulary: peel, grate, vegetable, fruit, taste, texture, smell, hygiene, cored, chop, Fruit as above plus melon, pineapple, kiwi, mango, lemon, lime		Vocabulary: minibeast, mechanism, wheel, pivot, lever, split pin, mechanism, movement,		Vocabulary: base, height, width, design, evaluate, stable, properties, structure	
Year 2	Autumn 2 – Vehicles (2.1) Building on 1.2, Pre-Unit to 3.1,5.2		Spring 2 – Puppets (2.2) Pre-unit to 4.1, 5.3		Summer 2 – Pizza (2.3) Building on 1.1, pre unit to 4.3, 6.3	
	Skills	Knowledge	Skills	Knowledge	Skills	Knowledge
	<p>To explore different ways of using axles, chassis and wheels to create a moving base.</p> <p>To design a vehicle with wheels, axles and chassis, as well as a body.</p> <p>To follow a design to make a moving vehicle.</p> <p>To select and use a range of equipment and materials to complete task.</p> <p>To evaluate a finished piece making suggestions for improvements</p>	<p>To be able to name a range of vehicles and their main features.</p> <p>To know the working parts of a wheel mechanism – axle, chassis, wheel,</p>	<p>I can cut out felt using a simple template.</p> <p>I can stick pieces of felt together to make a finger puppet.</p> <p>I can add pieces of felt and other materials to a finger puppet to create features, such as eyes, hats and mouths.</p> <p>I can use running stitch to join two pieces of fabric together.</p> <p>I can use overstitch to join two pieces of fabric together.</p> <p>I can sew a button onto a piece of fabric.</p> <p>I can design a glove puppet for a particular purpose.</p> <p>I can follow a design to make a glove puppet by sewing two pieces of fabric together and adding decorations.</p> <p>I can evaluate my finished glove puppet by identifying</p>	<p>To know and explore a variety of puppets</p> <p>To know what could be used to decorate a puppet – sequin, button, felt, gems, etc.</p>	<p>I can use the model of the balanced plate to evaluate how healthy different pizzas are.</p> <p>I can explore different types of bread and evaluate which would work best for a pizza base.</p> <p>I can identify which food group a variety of pizza toppings belong to.</p> <p>I can sort pizza toppings into groups based on different criteria, e.g. animal vs plant products.</p> <p>I can design and make a healthy pizza following given criteria.</p> <p>I can evaluate my finished pizza, saying what I think and feel about it.</p> <p>To use a knife and fork correctly to eat my pizza.</p>	<p>To know a variety of pizzas and their toppings.</p> <p>To understand the term ‘balanced plate’</p> <p>To know different food groups</p> <p>To understand the terms, plant or meat product, vegetarian</p> <p>I can explain why each of the food groups is important for a balanced diet.</p>

			what went well and what could be improved.			
	Vocabulary: axle, chassis, wheel, body, vehicle, mechanism, siren, engine,		Vocabulary: puppet, glove, decorations, fabric, felt, stitch, over stitch, running stitch, sequin, button		Vocabulary: topping, vegetarian, meat/plant product, balanced, base, bread, pizza,	
Year 3	Autumn 2 – Storybooks (3.1) Building on 1.2,2.1 Pre-Unit to 5.2		Spring 2 – British Inventors (3.2) Building on 1.3, Pre-unit to 4.2, 5.1, 6.2		Summer 2 – Light up signs (3.3) Pre unit to 6.1	
	Skills	Knowledge	Skills	Knowledge	Skills	Knowledge
	<p>To use a paper concertina to make an object pop out of a book.</p> <p>To arrange and stick paper between pages to create a pop-out.</p> <p>To create and use levers to create moving parts.</p> <p>To create moving wheel mechanisms to create different effects.</p> <p>To begin to experiment with different fonts and graphic design features.</p> <p>To design, create and evaluate a product (moving storybook) suggesting improvements.</p> <p>To evaluate the overall effectiveness of a created product</p>	<p>To know and explore a variety of moving storybooks, exploring how they move.</p> <p>To understand the purpose of a moving storybook.</p> <p>To know definitions for linkage, pivot, rotate and lever.</p>	<p>To explain how concrete is used to make structures more stable.</p> <p>To experiment with newspaper and tape to create different reinforced structures – rolling, folding, layering, weaving</p> <p>To create a structure strong enough to hold a dictionary using just newspaper and tape.</p> <p>To consider how different interventions have impacted how we live.</p>	<p>To know what concrete/reinforced concrete are</p> <p>To understand the term ‘inventor’</p> <p>To be able to name the inventors and their inventions they have studied.</p>	<p>To create a simple circuit with incandescent bulbs and a switch.</p> <p>To create a simple circuit with an LED bulb and a resistor.</p> <p>To make a circuit with a string of LED lights.</p> <p>To design an illuminated light box against a set of design criteria.</p> <p>To select materials, tools and components to create a free-standing structure.</p> <p>To make a stable, free-standing structure to house an electrical circuit.</p> <p>To strip, twist and join wire to make permanent connections.</p> <p>To insert an electrical circuit into a free-standing structure to create an illuminated light box.</p> <p>To evaluate the effectiveness of my finished product against the design criteria.</p>	<p>I can explore and analyse illuminated signs.</p> <p>To describe the difference between an LED and an incandescent light bulb.</p>
	Vocabulary: linkage, pivot, rotate, lever, font, graphic, storybook, wheel mechanism, concertina		Vocabulary: inventor, waterproof, flexible, foldable, reinforced, weaved, rolled, layered, folded, stable, intervention,		Vocabulary: circuit, resistor, illuminated, wire, electrical, housing, component, LED light, incandescent, light bulb, switch	

Year 4	Autumn 2 - Seasonal stockings (4.1) Building on 2.2 Pre-unit to 5.3		Spring 2 – Making mini greenhouses (4.2) Building on 1.3, 3.2,4.2 Pre-unit to 5.1, 6.2		Summer 2 – Seasonal Food (4.3) Building on 1.1,2.3 Pre-unit to 6.3	
	<p>Skills</p> <p>To use pins to temporarily fasten two pieces of fabric together.</p> <p>To tie a knot and thread a needle.</p> <p>To use running stitch, back stitch, over stitch and zigzag stitch to join two pieces of fabric together.</p> <p>I can sew a button, bead, sequin or pipe cleaner onto a piece of fabric.</p> <p>I can embroider shapes and patterns into a piece of fabric.</p> <p>I can use appliqué to add decoration to a piece of fabric.</p> <p>I can design a Christmas stocking incorporating a range of decorative techniques.</p> <p>I can use a template to cut out front and back pattern pieces.</p> <p>I can follow a design to create a product.</p> <p>To evaluate a finished piece making suggestions for improvements</p>	<p>Knowledge</p> <p>To understand the traditions relating the Christmas stockings</p> <p>To explore a variety of different Christmas stockings, looking at function and visual appeal</p> <p>To know a selection of decorations that can be attached to a stocking – ribbon, buttons, applique, sequins, beads etc.</p>	<p>Skills</p> <p>To use 3D nets to explore potential structures for a greenhouse, assessing their stability.</p> <p>To investigate ways of making a structure more stable, e.g. by inserting dowelling or adding triangles at the joins.</p> <p>To experiment with a range of materials to test which would be most appropriate for making the structure of a mini greenhouse.</p> <p>To design a mini greenhouse using specific design criteria.</p> <p>To select appropriate tools and materials to make a mini greenhouse.</p> <p>To follow my design to make a mini greenhouse.</p> <p>To evaluate my finished mini greenhouse for stability, effectiveness and visual appeal.</p>	<p>Knowledge</p> <p>To understand what a greenhouse is and how they work.</p> <p>To explore a range of different greenhouses.</p> <p>To know how greenhouses are used today.</p> <p>To explain how the shape of a structure affects its stability.</p> <p>To know that the weight of the structure needs to be evenly spread on the base to make it secure.</p> <p>To know that the wider a structure's base is, the more stable it will be.</p>	<p>Skills</p> <p>To practise cooking skills including slicing, dicing, beating, whisking, folding, sieving, rolling and grating.</p> <p>To follow a recipe to make fairy cakes.</p> <p>To follow a recipe to make fruit tarts using seasonal fruit.</p> <p>To follow a recipe to make stuffed peppers.</p> <p>To follow a recipe to make meatballs.</p> <p>To know some vegetarian options that provide the same nutrients as meat.</p> <p>To use what I have learnt about seasonal food to design healthy meals and menus.</p>	<p>Knowledge</p> <p>To explain what the term 'seasonal food' means</p> <p>To know that different parts of the world have different seasonal food.</p> <p>To discuss the benefits and problems of unseasonal food being available in shops all year round.</p> <p>To know that some foods, like wheat, are available all year round in the UK.</p> <p>To describe the cycle of wheat production in the UK.</p> <p>To distinguish between fruits that are grown in the UK and those that are grown abroad.</p> <p>To know how food producers can speed up or slow down the ripening process to make fruits and vegetables available all year round. To know some of the nutrients we get from fruits,</p>

						vegetables, meat, fish and dairy products. To know when certain meats are in season in the UK and which are available all year round. To explain how fish are caught or reared, processed and used in healthy meals.
	Vocabulary: running stick, back stitch, over stitch and zigzag stitch, template, button, sequin, ribbon, applique, thread, needle, decoration, bead, pin , fasten, stitch		Vocabulary: greenhouse, structure, base, width, height, stable, dowelling, joins		Vocabulary: processed, in season, meat, fish, nutrient, vegetarian, production slicing, dicing, beating, whisking, folding, sieving, rolling and grating, ripening, dairy, unseasonal, process,	
Year 5	Autumn 2 - Bridges (5.1) Building on 1.3, 3.2, 4.2 Pre-unit to 6.2		Spring 2 – Chinese Inventions (5.2) Building on 3.2 Pre-unit to 6.1		Summer 2- Fashion and Textiles (5.3)	
	Skills To predict which beams will be strongest from their cross-section. To test the strength of different beam shapes using paper and card. I can build a truss bridge spanning a width of 40cm using paper straws. I can use a fair test to evaluate the strength of my truss bridge. I can test the arch heights to see which can bear the most load.	Knowledge To know and name a variety of different structures of bridge. To know the significance of the engineer Isambard Kingdom Brunel To know what beams and pillars are and how they are used in bridge construction. To 1explain what a truss is and how trusses make bridges stronger, identifying the 3 main types in bridge design.	Skills I can test a variety of types of paper for strength, absorbency, opacity, etc. I can make recycled paper. I can make a hanging/floating compass. I can design and label my own compass. I can make a variety of kite prototypes and test their effectiveness. I can design, make and evaluate a kite according to specific design criteria.	Knowledge To explain how the invention of paper helped shape the world. To explain the traditional method for making paper. To explain how gunpowder was invented. To explain how the invention of the compass changed the world. I can explain what water-powered	Skills To identify straight stitch, zigzag stitch, whip/blanket stitch, blind stitch, buttonhole stitch and overlock stitch on a variety of ready-made garments. To sew a basting stitch. To sew a whip stitch. To sew a hem. To sew back stitch. To sew an appliqué decoration. To use back stitch to embroider.	Knowledge To explain the process of turning raw cotton into cloth. To know that products that are woven together are called textiles. To know that different textiles have different properties, and can match these to their purpose. To describe what the job of a fashion designer entails.

	I can make an arch frame. To design, make and evaluate a prototype suspension bridge using a scale of 1:100 according to specific design criteria.	To explain how arches work to make bridges stronger To explain how suspension bridges use tension forces to work.		machines are and how they helped change the world. I can explain why kites were first invented and how they were made.	To design a drawstring bag, including the necessary pattern pieces. To use pattern pieces to measure, mark, cut and sew fabric. To sew design elements according to design criteria. To join two pieces of fabric by hand sewing, using an appropriate stitch. To evaluate my finished product against a set of design criteria. .	To what a pattern piece is and why they are important when designing a garment
	Vocabulary: bridge, suspension, arches, trusses, prototype, scale, pillars, beams, span, strength, length, width		Vocabulary: compass, impact, world, inventor, kite, telephone, strength, absorbency, opacity, water-powered		Vocabulary: embroider, hand sew, fashion designer, pattern, measure, mark, cut, hem, applique, whip stitch	
Year 6	Autumn 2 – Programming pioneers Building on 3.2,5.2		Spring 2 – Bird Houses Building on 1.3, 3.2, 4.2		Summer 2 - Burgers Building on 1.1,2.3, 4.3	
	Skills To write an algorithm to suggest how various appliances might work. To develop and build a prototype pedestrian crossing using computer programming. To develop, model and communicate ideas for an embedded system which monitors and controls a door, room or both. To debug errors in an algorithm.	Knowledge To understand how computers and computer programs are used in a variety of products. To explain how modern memory chips work to store information. To know some examples of how computer hardware and software specialists work together to create new products To describe the typical design process for	Skills To investigate the appearance and function of a variety of different bird houses. To identify what materials have been used to construct a variety of bird houses and suggest how the parts have been joined together. To create a flat pack diagram of a constructed bird house. To draw an exploded diagram.	Knowledge To know what a flat pack diagram is and can use it to identify each part of a structure. To know when they may need this knowledge in the future To the safety rules I need to follow when doing woodwork.	Skills To evaluate how healthy a burger is based on its nutrition label. To compare different burgers and assess which is healthiest. To explain some of the different ways in which burger patties are cooked. To follow a recipe to make a beef, turkey or vegetable burger patty. To add ingredients to a basic burger patty to reflect global cuisine.	Knowledge To know that most foods we buy have nutrition labels to help us make informed choices about what we eat. To know that calories come from fats, proteins and carbohydrates.

	<p>To suggest ways to change an algorithm to improve a system.</p> <p>To select and use electronic components to construct a prototype of an embedded computer-controlled room system.</p> <p>To evaluate my design for a computer-controlled system and consider the views of others to improve my work.</p>	<p>computer-controlled electronic products.</p> <p>To know that Charles Babbage created the first mechanical computer.</p> <p>To know that Ada Lovelace is referred to as the world's first computer programmer.</p> <p>To know that Steve Jobs and Steve Wozniak co-founded Apple, Inc. to make the first Apple computers.</p> <p>To make links to World War 2 topic and Bletchley Park - Enigma.</p> <p>To know what a computer engineer is and what they do</p>	<p>To measure, clamp, saw, sand and join wood.</p> <p>To use a hand drill to drill a hole in a piece of wood.</p> <p>To design a bird house for a particular bird, taking into account the bird's needs.</p> <p>To select appropriate tools and materials to use when making a bird house.</p> <p>To create a sturdy bird house frame using wood.</p> <p>To evaluate their finished bird house, taking into account the views of others to improve my work.</p> <p>To use observation to evaluate the effectiveness of my bird house.</p> <p>.</p>	<p>To recognise and name the tools associated with basic woodwork.</p> <p>To understand why it may be important to help conserve the bird population.</p> <p>To understand climate changes that affect wildlife,</p>	<p>To follow a recipe to make different burger sauces, including salsa, tzatziki and barbecue sauce.</p> <p>To design a burger menu to incorporate different patties, sides and sauces.</p> <p>To explore, taste and assess different types of bread and their suitability for a burger bun.</p> <p>To offer suggestions for some alternatives for bread.</p> <p>To add mixtures of herbs and spices to a basic bread dough to make flavoured burger buns.</p> <p>To design a burger for a particular purpose.</p> <p>To design a burger for someone with particular dietary requirements.</p> <p>To make and evaluate a burger, following my recipe and design.</p>	
	<p>Vocabulary: computer, engineer, inventor, algorithm, prototype, component, pedestrian crossing, program, memory chip, embedded, computer controlled.</p>		<p>Vocabulary: bird house, drill, screwdriver, sandpaper, chisel, clamp, saw, sand, join, nail, screw, hammer, woodwork, population, climate,</p>		<p>Vocabulary: patty, burger, sauce, evaluate, dietary requirements, alternative, incorporate, suitability, ingredients, fat, protein, carbohydrate, nutrition, calorie</p>	