

Reception

End Point:

Children are introduced to 3 strands of the DT curriculum (Structures, Cooking and Nutrition and Textiles)

Structures: Main Skill – Children can safely use and explore a variety of materials and tools.

Cooking and Nutrition: Main Skill – Children can chop pre-boiled vegetables with support

Textiles: Main Skill – Children can practise threading and weaving

Children at this stage will also be developing **ELGs** in: Speaking , Managing self, The Natural World, Creating with Materials

	Autumn 1 Junk Modelling Boxes	Autumn 2 Hibernation	Spring 1 Boats	Spring 2 Soup		Summer 2 Bookmarks
Vocabulary	Join Stick Cut Bend Slot Scissors Measure Materials Fix	Hibernate Season Autumn Food Fat Energy Warmth Rest Cardboard Design Model	Waterproof Absorb Prediction Variable Experiment Investigation Float Sink Junk	Fruit Vegetables Safety Knife Blade Tool Edge Handle Chop Slice Cut Saucepan	Blender Chopping board Hob Boil Blend Mix Packaging Recyclable Metal Plastic Reusable	Thread Weave Pattern Sew Sewing needle Embroider Design Evaluate
Design	Making verbal plans and material choices. Developing a junk model.	Draw a hibernation box design.	Designing a junk model boat. Using knowledge from exploration to inform design.	Designing a soup recipe as a class. Designing soup packaging.		Discussing what a good design needs. Designing a simple pattern with paper. Designing a bookmark. Choosing from available materials.
Make	Improving fine motor/scissor skills with a variety of materials. Joining materials in a variety of ways (temporary and permanent).	Gather natural resources and create a box.	Making a boat that floats and is waterproof, considering material choices.	Chopping plasticine safely. Chopping vegetables with support.		Developing fine motor/cutting skills with scissors. Exploring fine motor/threading and weaving (under, over technique) with a variety of materials.

	Joining different materials together. Describing their junk model, and how they intend to put it together.				Using a prepared needle and wool to practise threading.
Evaluate	Giving a verbal evaluation of their own and others' junk models with adult support. Checking to see if their model matches their plan. Considering what they would do differently if they were to do it again. Describing their favourite and least favourite part of their model.	Verbally evaluate whether the box is warm and dry enough for an animal.	Making predictions about, and evaluating different materials to see if they are waterproof. Making predictions about, and evaluating existing boats to see which floats best. Testing their design and reflecting on what could have been done differently. Investigating how the shapes and structure of a boat affect the way it moves.	Tasting the soup and giving opinions. Describing some of the following when tasting food: look, feel, smell and taste. Choosing their favourite packaging design and explaining why.	Reflecting on a finished product and comparing it to their design.
Technical Knowledge	To know there are a range to different materials that can be used to make a model and that they are all slightly different. Making simple suggestions to fix their junk model.	To know some animals hibernate during the colder months of the year. To know that some materials are better for containing warmth.	To know that 'waterproof' materials are those which do not absorb water. To know that some objects float and others sink. To know the different parts of a boat.	To know that soup is ingredients (usually vegetables and liquid) blended together. To know that vegetables are grown. To recognise and name some common vegetables. To know that eating vegetables is good for us. To know that different vegetables taste different. To discuss why different packages might be used for different foods.	To know that a design is a way of planning our idea before we start. To know that threading is putting one material through an object.

St Francis CE Primary School – DT Progression

Year 1

End point:

Children are developing skills in 2 strands of the DT curriculum (Cooking and Nutrition and Textiles) and are introduced to a new strand (Mechanisms)

Cooking and Nutrition: Main Skill – Children can chop fruit and vegetables independently

Textiles: Main Skill – Children can independently demonstrate a Running Stitch.

Mechanisms: Main Skill – Children can understand and use Levers (Basic) and Sliders.

	Autumn - Cooking and Nutrition Fruit and Vegetables - Smoothie Making		Spring -Textiles Pouches or Puppets		Summer - Mechanisms - Levers and Sliders Moving Story Book	
Vocabulary	Blender Carton Fruit Healthy Ingredients	Peel Peeler Recipe Slice (verb) Smoothie Vegetable	Accurate Fabric Knot Pouch Running-stitch	Sew Shape Stencil Template Thimble	Assemble Design Design Criteria Evaluation Mechanism	Model Sliders Stencil Target audience Template Test
Design	Designing smoothie carton packaging by-hand or on ICT software. Design appealing products for a particular user based on simple design criteria - Decide on flavour combinations of fruits and/or vegetables for your smoothie. Generate initial ideas and design criteria through investigating a variety of fruit and vegetables. Communicate these ideas through talk and drawings.		Design and create a pouch or a puppet. To know what design criteria is and how it can be used to create a product.		Designing a moving story book for a given audience. Understand that products are designed for users based on criteria, and what simple criteria for a moving toy could be: the mechanism should work smoothly, it should make the right type of movement. Generate ideas based on simple design criteria and their own experiences Develop, model and communicate their ideas through drawings and mock-ups with card and paper. Plan and suggest steps in the creation phase.	
Make	Wash hands before preparing food and fruit and vegetables before we prepare them. Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop fruit and vegetables safely to make a smoothie. .		Selecting and cutting fabrics for sewing. To know which equipment is needed to sew material together. Neatly pinning and cutting fabric using a template.		Select and use tools, explaining their choices, to cut, shape and join paper and card. Understand the steps to make a moving picture.	

	Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product.	Decorating a pouch/puppet using fabric glue or running stitch. Threading a needle and sewing running stitch, with evenly spaced, neat, even stitches to join fabric - sewing the material together effectively at the seams.	Following a design to create moving models that use levers and sliders.
Evaluate	Tasting and evaluating different food combinations. Describing appearance, smell and taste. (Sensory Evaluation - appearance, smell, taste, texture/mouth feel.) Taste and evaluate a range of fruit and vegetables to determine the intended user's preferences. Evaluate ideas and finished products against design criteria, including intended user and purpose. Suggesting information to be included on packaging.	Troubleshooting scenarios posed by teacher/TA. To know how to evaluate their own and each other's product against the design criteria and suggest improvements. Evaluating the quality of the stitching on each others' work. Discussing as a class, the success of their stitching against the success criteria. Identifying aspects of their peers' work that they particularly like and why.	Testing a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed. Reviewing the success of a product by testing it with its intended audience.
Technical Knowledge	Understanding the difference between fruits and vegetables. To know that a fruit has seeds and a vegetable does not. To know that a blender is a machine which mixes ingredients together into a smooth liquid. To know that fruit is an essential part of a balanced diet and 5 portions of fruit and vegetables are recommended per day. To know that fruit and vegetables can be farmed or grown at home. To know that fruits grow on trees or vines. To know that vegetables can grow either above or below ground. To know that vegetables can come from different parts of the plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber).	To know and use key vocabulary, as relevant to the project: seam, thread, stitch. To thread and use a needle safely. To know that sewing is a method of joining fabric. To know that different stitches can be used when sewing. To understand the importance of tying a knot after sewing the final stitch. To know that a thimble can be used to protect my fingers when sewing.	To know that a mechanism is the parts of an object that move together. To know that a slider mechanism moves an object from side to side and has a slider, slots, guides and an object. To know that bridges and guides are bits of card that purposefully restrict the movement of the slider. To know that in design and technology we call a plan a 'design'. Understand that different mechanisms produce different types of movement. Know and use technical vocabulary relevant to the project.

St Francis CE Primary School – DT Progression

Year 2

End Point:

Children are developing skills in 3 strands of the DT curriculum (Structures, Mechanisms and Cooking and Nutrition and Textiles)

Structures: Main Skill – Children can use paper, card, art straws and masking tape to build a structure.

Textiles (and structures): Main Skill - Children can create a kite structure then select and adapt their kite cover using different textiles

Cooking and Nutrition: Main Skill – Children can slice using the bridge/claw grip.

	Autumn - Structures Build a tower		Spring - Structures and Textiles Making Kites		Summer - Cooking and Nutrition A Balanced Diet - Healthy Wrap	
Vocabulary	Function Man-made Mould Natural Stable	Stiff Strong Structure Test Weak	Accurate Design Fix Struts Spine (vertical stick) Tail Power source - wind	Spar (horizontal support) Test Fly, flying, flight Flying line - control Reel (handle) Taught/tension Pulling force, drag, sore, glide	Alternative Diet Balanced diet Evaluation Expensive Healthy	Ingredients Nutrients Packaging Refrigerator Sugar
Design	Generating and communicating ideas using sketching and modelling. Explore initial ideas using drawings and mock-ups. Learning about different types of towers found in the natural world and manmade world.		To know the purpose of their product (that the finished model can fly) Generate initial ideas and simple design criteria. Develop and communicate ideas through drawings and mock-ups. Designing a kite with structures and a decorative cover. Creating clearly labelled drawings that illustrate movement.		Designing a healthy wrap based on a food combination which work well together.	
Make	Making a tower according to design criteria. To know how to join components together effectively - Creating simple joins with art straws and masking tape.		To know what components are needed to construct a kite and use this to select materials according to which are most suitable. Use a range of tools and equipment to perform practical tasks, such as cutting and joining .		Slicing food safely using the bridge or claw grip. Constructing a wrap that meets a design brief.	

	Building a strong and stiff structure by folding paper. Know that a range of tools can be used for different purposes: cutting, sticking, curling, bending, joining etc. Select and use a range of materials and components, such as paper, card, plastic according to their characteristics.	Select from and use a range of materials and components, such as paper, card, plastic, wood and a variety of textiles according to their characteristics. Adapting kite design, when: -they do not work as they should. - improving and adapting model	
Evaluate	Exploring the features of structures/towers. Comparing the stability of different towers. Testing the strength of own structures. Identifying the weakest part of a structure. Evaluating the strength, stiffness and stability of my own structure. Evaluate their ideas throughout the process and review their products against original criteria.	Testing kite flight Identifying what stops the kite from flying and what helps it to fly. Evaluate the success of their product against the design criteria.	Describing the taste, texture and smell of fruit and vegetables. Taste testing food combinations and final products. Describing the information that should be included on a label. Evaluating which grip was most effective.
Technical Knowledge	To know that shapes and structures with wide, flat bases or legs are the most stable. To understand that the shape of a structure affects its strength. To know that materials can be manipulated to improve strength and stiffness. To know that a structure is something which has been formed or made from parts. To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move.	To know technical vocabulary relevant to the project. To know how to construct a kite, explaining which materials are successful and why. To know that kite flying is part of aerodynamics and be able to explain why a kite can fly. To name different types of kites and explain how they fly e.g kite surfing etc. To discuss the purpose of kites.	To know that 'diet' means the food and drink that a person or animal usually eats. To understand what makes a balanced diet. To know where to find the nutritional information on packaging. To know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. To understand that I should eat a range of different foods from each food group, and roughly how much of each food group.

	To know that a 'strong' structure is one which does not break easily. To know that a 'stiff' structure or material is one which does not bend easily. To understand how structures can be made stronger and stiffer. To know that natural structures are those found in nature. To know that man-made structures are those made by people. Build structures by selecting appropriate materials and investigating ways to strengthen them.	To know that kites are used for fun, but have other uses e.g. aeronautical development etc. To understand why kites have tails - stability, balance and drag.	To know that nutrients are substances in food that all living things need to make energy, grow and develop. To know that 'ingredients' means the items in a mixture or recipe. To know that I should only have a maximum of five teaspoons of sugar a day to stay healthy. To know that many food and drinks we do not expect to contain sugar do; we call these 'hidden sugars'.
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St Francis CE Primary School – DT Progression

Year 3

End Point:

Children are developing skills in 2 strands of the DT curriculum (Textiles and Cooking and Nutrition) and are introduced to a new strand (Digital World)

Textiles: Main Skill – Children can independently demonstrate a Cross Stitch.

Digital World: Main Skill – Children can understand and use 2D CAD.

Cooking and Nutrition: Main Skill – Children can follow instructions in a recipe.

	Autumn - Textiles Cross Stitch and Applique (Cushions)		Spring - Waste To Taste	Summer - Cooking and Nutrition Eating Seasonally - Savoury/Fruit/Veg Tart	
Vocabulary	Accurate Applique Cross-stitch Cushion Decorate Detail Fabric Patch	Running-stitch Seam Stencil Stuffing Target audience Target customer Template	TBC	Climate Dry climate Exported Imported Mediterranean climate Nutrients Polar climate Recipe Seasonal food Temperate climate Tropical climate	Pastry Case Names of fruits Names of vegetables Names of different cheeses
Design	Designing and making a template from an existing cushion and applying individual design criteria.			Creating a healthy and nutritious recipe for a savoury tart, fruit tart or vegetable tart using seasonal ingredients, considering the taste, texture, smell and appearance of the dish. Use their prior knowledge of the food groups that different healthy foods belong and demonstrate by selecting appropriate combinations for a singular meal.	
Make	Following design criteria to create a cushion. Selecting and cutting fabrics with ease using fabric scissors.			Knowing how to prepare themselves and a work space to cook safely in, learning the basic rules to avoid food contamination. Following the instructions within a recipe.	

	Threading needles with greater independence. Tying knots with greater independence. Sewing cross stitch to join fabric. Decorating fabric using appliqué. Completing design ideas with stuffing and sewing the edges (Cushions)		Plan and prepare a dish of nutritional value. Prepare a meal safely, using a range of equipment appropriately. To know the purpose of different tools and which to select for use in preparing food (eg culinder, sieve, spatula, peeler). To know how to wash, peel, slice and grate vegetables, selecting and use appropriate kitchen equipment safely and purposefully Make and present food in an aesthetically pleasing way.
Evaluate	Evaluating an end product and thinking of other ways in which to create similar items.		Establishing and using design criteria to help test and review dishes. Describing the benefits of seasonal fruits and vegetables and the impact on the environment. Suggesting points for improvement when making a seasonal tart. Evaluating the success of their own and others' dishes, involving critique of how dishes could be improved.
Technical Knowledge	To know that applique is a way of mending or decorating a textile by applying smaller pieces of fabric to larger pieces. To know that when two edges of fabric have been joined together it is called a seam. To know that it is important to leave space on the fabric for the seam. To understand that some products are turned inside out after sewing so the stitching is hidden.		Understand seasonality, and know where and how fruit and vegetables come from and are grown. To know that not all fruits and vegetables can be grown in the UK. To know that climate affects food growth. To know that vegetables and fruit grow in certain seasons. (To know the source of their food.) To begin to use and be aware of a range of methods of food preparation, such as peeling,

			chopping, steaming and boiling. To know that cooking instructions are known as a 'recipe'. To know that imported food is food which has been brought into the country. To know that exported food is food which has been sent to another country. To understand that imported foods travel from far away and this can negatively impact the environment. To know that each fruit and vegetable gives us nutritional benefits because they contain vitamins, minerals and fibre. To understand that vitamins, minerals and fibre are important for energy, growth and maintaining health. To know safety rules for using, storing and cleaning a knife safely. To know that similar coloured fruits and vegetables often have similar nutritional benefits.
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St Francis CE Primary School – DT Progression

Year 4

End Point:

Children are developing skills in 2 strands of the DT curriculum (Structures and Mechanical Systems) and are introduced to a new strand (Electrical Systems)

Electrical Systems: Main Skill – Children can incorporate Switches and Bulbs into the final product/light up poster

Structures: Main Skill – Children can build and reinforce Frame Structures.

Mechanical Systems: Main Skill – Children can understand and use Levers (Advanced) and Linkages.

	Autumn - Electrical Systems Posters with switches		Spring - Free standing structures Pavilions	Summer - Mechanical systems - Pulleys (Levers and Linkages)	
Vocabulary	Battery Bulb Cell Conductor Copper Electrical item	Electricity Insulator Series circuit Switch Torch	Cladding Design criteria Structure Innovative 3D shapes Natural Reinforce	Evaluation Input Lever Linear motion Linkage Mechanical Mechanism	Motion Oscillating motion Output Pivot Reciprocating motion Rotary motion Survey
Design	Designing a poster with a light up section, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas.		Use research to inform the design criteria for a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect. Know how to use and manipulate materials in order to create a frame structure. Use existing designs to inform own and communicate ideas through discussion, annotated sketches, cross-sectional diagrams and computer aided design (word.doc with shape manipulation) Compare designs and understand the necessary features of a suitable structure (considering locational aspects; indoor/outdoor, accessibility, strength and space).	Creating a 'class design criteria' for moving water cycle display Designing a moving water cycle display for a specific audience in accordance with a design criteria. Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user. Use annotated sketches and prototypes to develop, model and communicate ideas.	

Make	Making a poster with a working electrical circuit and switch which lights up a section on the poster. Using appropriate equipment to cut and attach materials. Assembling a torch according to the design and success criteria.	Creating a range of different shaped frame structures. Making a variety of free-standing frame structures of different shapes and sizes. Selecting appropriate materials to build a strong structure and cladding. Reinforcing corners to strengthen a structure. Creating a design in accordance with a plan. Learning to create different textural effects with materials.	Making linkages and pulleys using card for levers and split pins for pivots and cords for pulleys. Experimenting with linkages and pulleys adjusting the widths, lengths and thicknesses of card and cord used. Cutting and assembling components neatly. A paper fastener that joins card strips together is a 'loose pivot'. A paper fastener that joins card strips to the backing card is a 'fixed pivot'.
Evaluate	Evaluating electrical products. Testing and evaluating the success of a final product. Assessing if the light was in the best possible location on the poster.	Evaluating structures made by the class. To investigate the construction of existing structures and evaluate their own design against the design criteria. Describing what characteristics of a design and construction made it the most effective. Considering effective and ineffective designs.	Evaluating own designs against design criteria. using peer feedback to modify a final design. Investigate and analyse books and evaluate other products with lever and linkage mechanisms prior to making their own. Evaluate their own products and ideas against criteria and user needs, as they design and make.
Technical Knowledge	To understand that electrical conductors are materials which electricity can pass through. To understand that electrical insulators are materials which electricity cannot pass through. To know that a battery contains stored electricity that can be used to power products. To know that an electrical circuit must be complete for electricity to flow.	To understand what a frame structure is. To know that a 'free-standing' structure is one which can stand on its own. To use understanding of how the shape of a structure can influence its strength and how their own structure can be strengthened by internal support and exterior reinforcement. To know that a pavilion is a decorative building or structure for leisure activities.	To know that mechanisms are a collection of moving parts that work together to produce movement. To know that there is always an input and output in a mechanism. To know that an input is the energy that is used to start something working. To know that an output is the movement that happens as a result of the input.

	To know that a switch can be used to complete and break an electrical circuit. To know the features of a torch: case, contacts, batteries, switch, reflector, lamp, lens. To know facts from the history and invention of the electric light bulb(s) - by Sir Joseph Swan and Thomas Edison.	To know that cladding can be applied to structures for different effects. To know that aesthetics are how a product looks. To know that a product's function means its purpose. To understand that the target audience means the person or group of people a product is designed for. To know that architects consider light, shadow and patterns when designing.	To know that a lever is something that turns on a pivot. To know that a linkage mechanism is made up of a series of levers. To know that a pulley system is a simple 'machine' consisting of a wheel with a grooved rim and a rope, cord, cable or chain used to lift or move heavy loads with less effort. To apply this knowledge of pulleys to create mini pulleys which will move parts on a water cycle display. To know that by using a pulley, you can change the direction of force (pulling down to lift up) or use multiple wheels to reduce the effort needed, also known as the mechanical advantage. To know some real-life objects that contain mechanisms. Humans have used levers since the stone age.
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St Francis CE Primary School – DT Progression

Year 5

End Point:

Children are developing skills in 3 strands of the DT curriculum (Electrical Systems, Textiles, Cooking and Nutrition)

Electrical Systems: Main Skill – Children can incorporate motors into the final product. (Doodlers - an electrical device that uses a motor to generate a wobbly offset spin and scribble jagged circles and patterns.)

Textiles: Main Skill – Children can independently demonstrate a Blanket stitch.

Cooking and Nutrition: Main Skill – Children can cut and prepare safely.

	Autumn - Electrical Systems Doodlers		Spring - Textiles Stuffed Toys		Summer - Cooking and Nutrition What Could Be Healthier?	
Vocabulary	Motor Motorised Product analysis Series circuit Circuit component Current Investigate Product analysis	Problem-solve Configuration Develop Stable Target user DIY (do it yourself) Hobby	Design Template Model Stuffed toy Stuffing Fabric Running stitch Cross-stitch Appliqué		Beef Cross-contamination Diet Ethical issues Farm Healthy Ingredients Method Nutrients	Packaging Reared Recipe Research Substitute Supermarket Vegan Vegetarian Welfare
Design	Identifying factors that could be changed on existing products and explaining how these would alter the form and function of the product. Developing design criteria based on findings from investigating existing products. Developing design criteria that clarifies the target user.		Designing a stuffed toy, considering the main component shapes required and creating an appropriate template, communicating initial ideas through annotated sketches Use research into the features of an appealing functional small soft toy to inform design criteria. Considering the proportions of individual components.		Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients. Writing an amended method for a recipe to incorporate the relevant changes to ingredients. Designing appealing packaging to reflect a recipe.	
Make	Altering a product's form and function by tinkering with its configuration.		Creating a 3D stuffed toy from a 2D design.		Cutting and preparing vegetables safely. Using equipment safely, including knives, hot pans and hobs.	

	Making a functional series circuit, incorporating a motor. Constructing a product with consideration for the design criteria. Breaking down the construction process into steps so that others can make the product.	Select and use a range of tools to perform practical tasks; stitching and sewing (joining), cutting and systematically work through phases of a design. Measuring, marking and cutting fabric accurately and independently. Creating strong and secure blanket stitches when joining fabric. Threading needles independently. Using appliqué to attach pieces of fabric decoration. Sewing blanket stitch to join fabric. Applying blanket stitch so the spaces between the stitches are even and regular.	Knowing how to avoid cross-contamination. Following a step by step method carefully to make a recipe.
Evaluate	Carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses. Determining which parts of a product affect its function and which parts affect its form. Analysing whether changes in configuration positively or negatively affect an existing product. Peer evaluating a set of instructions to build a product.	Testing and evaluating an end product and giving points for further improvements. Evaluate the outcome with reference to the design criteria. Take stuffed toys to the nursery for an evaluation! To know how to evaluate their product against the product criteria they have generated individually, as a means to improve their work.	Identifying the nutritional differences between different products and recipes. Identifying and describing healthy benefits of food groups.
Technical Knowledge	To know that series circuits only have one direction for the electricity to flow. To know when there is a break in a series circuit, all components turn off.	To know that blanket stitch is useful to reinforce the edges of a fabric material or join two pieces of fabric.	To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed, including key welfare issues.

	To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin. To know a motorised product is one which uses a motor to function. To know that product analysis is critiquing the strengths and weaknesses of a product. To know that 'configuration' means how the parts of a product are arranged.	To understand that it is easier to finish simpler designs to a high standard and know and use technical vocabulary relevant to the project. To know how to specify a design to make it more appealing to a specific target group. To know that soft toys are often made by creating appendages separately and then attaching them to the main body. To know that small, neat stitches which are pulled taut are important to ensure that the soft toy is strong and holds the stuffing securely. (To know different types of stitches for the purpose of functionality and aesthetics.)	To know that I can adapt a recipe to make it healthier by substituting ingredients. To know that I can use a nutritional calculator to see how healthy a food option is. To understand that 'cross-contamination' means bacteria and germs have been passed onto ready-to eat foods and it happens when these foods mix with raw meat or unclean objects.
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St Francis CE Primary School – DT Progression

Year 6

End Point:

Children are developing skills in 3 strands of the DT curriculum (Structures, Electrical Systems and Cooking and Nutrition)

Structures: Main Skill – Children can use the correct techniques to saw safely.

Electrical Systems: Main Skill – Children can incorporate buzzers into final product.

Cooking and Nutrition: Main Skill – Children can prepare food for a pop-up cafe.

	Autumn - Structures Bridges			Spring - Electrical Systems Steady Hand Game			Summer - Cooking and Nutrition Pop Up Cafe	
Vocabulary	Accurate Arch bridge Beam bridge Bench hook Cable-stayed bridge Cantilever bridge	Compression File Mark out Reinforce Sandpaper Set square or Try square	Shape Structure Suspension Bridge Tension Truss bridge	Assemble Battery Battery pack Benefit Bulb Bulb holder Buzzer Circuit	Circuit symbol Component Conductor Copper Design Design criteria Evaluation Fine motor skills	Fit for purpose Form Function Gross motor skills Insulator LED User	Cross-contamination Diet Ethical issues Farm Healthy Halal Kosher Ingredients Meat products - chicken, turkey, beef, pork, lamb, goat, game etc. Market	Non-meat based substitutes - tofu, soya mince, pea protein etc Method Nutrients Packaging Pescatarian Reared Recipe Research Substitute Supermarket Vegan Vegetarian Welfare
Design	Consider how the design of particular bridges makes them particularly successful considering their purpose and location (e.g. Severn Bridge, Tower Bridge). Work in a team to plan and build a bridge structure by accurately following a plan. Creating cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design can support the design process overall.			Designing a steady hand game - identifying and naming the components required. Drawing a design from three different perspectives. Generating ideas through sketching and discussion. Modelling ideas through prototypes. Understanding the purpose of products (toys), including what is meant by 'fit for purpose' and 'form over function'.			Generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification. Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose.	

	Designing a stable structure that is able to support weight. Creating a frame structure with a focus on triangulation. Use computer aided design and exploded diagrams to support the design process. Write a step by step set of instructions to follow for building their bridge, including the tools and materials.		Use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas. Consider the availability and costings of resources when planning out designs.
Make	Sketch and annotate a plan of their planned bridge. Making a range of different shaped beam bridges. Accurately join frameworks using appropriate and robust joins. Using triangles to create truss bridges that span a given distance and support a load. Building a wooden bridge structure. Independently measuring and marking wood accurately. Selecting appropriate tools and equipment for particular tasks. Using the correct techniques to saw safely. Identifying where a structure needs reinforcement and using card corners for support. Explaining why selecting appropriating materials is an important part of the design process. Understanding basic wood functional properties.	Constructing a stable base for a game. Accurately cutting, folding and assembling a net. Decorating the base of the game to a high-quality finish. Making and testing a circuit. Incorporating a circuit into a base.	Make, decorate and present the food product appropriately for the intended user and purpose. Select and use a range of utensils, including knives, chopping boards, weighing scales, measuring jugs, baking trays. Select and use a range of healthy ingredients such as bread, fruits, vegetables and spreads (considering and giving reasons for choices). Carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/charts such as star diagrams.

Evaluate	Evaluate their completed project considering how successful their bridge is according to the original brief. Adapting and improving own bridge structure by identifying points of weakness and reinforcing them as necessary. Suggesting points for improvements for own bridges and those designed by others. Evaluate an existing bridge to inform plans and structures. Evaluate different materials and their suitability for use in a bridge.	Testing own and others finished games, identifying what went well and making suggestions for improvement. Gathering images and information about existing children's toys. Analysing a selection of existing children's toys.	Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements. To know how to apply points of improvement to their meal. Describing changes they would make before they present the meal in the pop up tent. Review which dishes were most popular and use this as a means to evaluate own dish and suggest improvements, relating this process to real life scenarios (such as developing a menu/informing stock purchase) Review work against their own design criteria, including aspects such as presentation, food combinations, popularity and healthiness.
Technical Knowledge	To understand some different ways to reinforce materials and structures. To understand how triangles can be used to reinforce bridges. To know that properties are words that describe the form and function of materials. To understand why material selection is important based on properties. Bridges can be made of steel, brick, wood, iron etc. To understand the material (functional and aesthetic) properties of wood.	To know that batteries contain acid, which can be dangerous if they leak. To know the names of the components in a basic series circuit, including a buzzer. To know that 'form' means the shape and appearance of an object. To know the difference between 'form' and 'function'. To understand that 'fit for purpose' means that a product works how it should and is easy to use. To know that form over purpose means that a product looks good but does not work very well.	To know that particular dishes are associated with different cultures and places. To understand how key chefs have influenced eating habits to promote varied and healthy diets. To know now how to use appropriate equipment and utensils to prepare and combine food. To know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. To know and use relevant technical and sensory vocabulary appropriately.

	To understand the difference between arch, beam, truss, cable-stayed, cantilever and suspension bridges. To understand how to carry and use a saw safely/ how to work safely using tools and equipment.	To know the importance of 'form follows function' when designing: the product must be designed primarily with the function in mind. To understand the diagram perspectives 'top view', 'side view' and 'back'.	To know how to evaluate the work of others and how to positively receive feedback on their own work.
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F. Coates/DT Progression of Knowledge and Skills for each year group/Dec 2023