

		Ready to Progress in Design and Technology Design is not just what it looks and feels like. Design is how it works. Steve Jobs					
		Structures	Textiles	Mechanisms	Cooking and Nutrition	Electrical Systems	Digital World
EYFS	Junk modelling / Boats	Bookmarks - threading and weaving.	Sliding Mechanism	Soup			
	Children explore and investigate the tools and materials in the junk modelling area. Children investigate cutting different materials. Children can learn how to plan and select the correct resources needed to make a model. Children can verbally plan and	Children can practise and apply weaving skills to paper. Children practise and apply threading skills with specific materials such as hessian and wool. Children use threading or sewing to design a product. Children create a product using their own design.	Children can explore a simple paper slider mechanism as part of a practical example and then apply it to their own picture. Children can create a picture with a simple sliding mechanism.	Children can explore fruits and vegetables and the differences between them. Children can explore fruits and vegetables using all five senses. Children can design a recipe using fruit and vegetables. Children learn how to use a knife safely. Children safely use tools to prepare ingredients.			

Cross Curricular Application
Progressive Strands

	create a junk model. <i>EYFS Science - Floating and Sinking.</i> <i>Year 2 Scientist study - Charles Makintosh (Waterproofing materials)</i>			Children can <i>design food packaging.</i> <i>EYFS Science link - Plants, bulbs and vegetables.</i>		
--	---	--	--	---	--	--

Cross Curricular Application
Progressive Strands

		Year 2 Art - Weaving.				
Year 1	Constructing a Windmill	Puppets	Moving story book / Wheels and Axles	Smoothies		
	Children can follow design criteria. Children can make a stable structure with functioning attachments, e.g. sails. Children can improve their design.	Children can join fabrics together using pins, staples or glue. Children can design using a template. Children can decorate their final piece to match their design. Puppets revisited in Year 3 Art.	Children can identify if the mechanism is side to side or up and down and determine what movement the mechanism will make. Children can clearly label drawings to show which parts of their design will move and in which direction. Children can make a picture which meets the design criteria. Children can evaluate the main strengths and weaknesses of their design and suggest alterations.	Children can describe fruits and vegetables and explain how to identify fruits. Children can name a range of places that fruits and vegetables grow. Children can describe basic characteristics of fruit and vegetables. Children can prepare fruits and vegetables to make a smoothie.		
Year 2	Baby Bear's Chair	Pouches	Moving Monster / Fairground Wheel	Balanced Diet		
	Children can identify natural and man-made structures.	Children can sew a running stitch and know that both ends must be knotted.	Children can identify the correct terms for levers, linkages and pivots.	Children can name the main food groups and identify foods that belong to each group.		

Cross Curricular Application
Progressive Strands

	Year 2 Science - Materials. Children can identify stable and unstable structures. Children contribute to discussions and explain their ideas. Children can explain how they make a model strong, stiff and stable.	Children can prepare and cut fabric. Children can make a pouch from the pouch template. Children can decorate their pouch.	Children can analyse popular toys with the correct terminology. Children can create functional linkages. Children can make a design that satisfies design criteria. Children can evaluate their two designs using feedback from peers. Children can select and assemble materials. Children can design and label a wheel. Children can consider the designs of others and comment on practicality or appeal. Children consider the materials, shape, construction and mechanisms of their wheel. Children can label a design.	Children can describe the taste, feel and smell of a given food - Revisiting using senses explored in EYFS. Children can think of three different wrap ideas, considering flavour combinations. Children can construct a wrap that meets the design brief and their plan.		
--	---	---	---	--	--	--

Cross Curricular Application
Progressive Strands

			Children can build a stable structure with a rotating wheel. Children can test and adapt their design as necessary. Children can follow a design plan.			
Year 3	Constructing a Castle	Cross Stitch / Applique	Pneumatic toys	Eating Seasonally	Electric Poster	Wearable Technology
	Children can draw and label a simple drawing that includes common features. Children can recognise structures are made up of multiple 3D shapes. Children can cut along the lines on the net of a 2D shape and use glue to assemble. Children can evaluate their work	Children can use cross stitch as a decorative feature and to join two pieces of fabric. Children can develop designs based on design criteria. Children can design, cut and shape their template with increasing accuracy. Children can measure and attach ribbon with a running stitch (Year 2 skill revisited)	Children can draw accurate diagrams with correct labels, arrows and explanations. Children can correctly identify definitions for key terms. Children can identify 5 appropriate design criteria. Children can communicate ideas using thumbnail sketches. Children can communicate and	Children can explain that fruits and vegetables grow in different countries based on their climates. Children understand that seasonal fruits and vegetables grow in a given season. Children understand that eating seasonal fruit and vegetables positively affects the environment.	Children can explain what 'information design' is and understand it's impact. What would happen if we had no signage of written communication? Children can research and choose a specific Ancient Roman topic to be the topic of their poster. Year 5	Children can give a brief explanation of the digital revolution and/or remember key examples. Children can suggest a feature from the virtual micro:bit that is suitable for the product. Children can write a program that initiates a

Cross Curricular Application
Progressive Strands

	by answering simple questions.	Children can recognise different types and qualities of fabrics. Children can explain the aesthetic and / or functional properties of some of their material choices.	develop one idea using an exploded diagram. Children can select appropriate equipment and materials to build a working pneumatic system. Children can assemble their pneumatic system within the housing to create the desired motion that fulfils the design brief. Year 2 Scientist study - John Boyd Dunlop.	Children design a tart recipe using seasonal ingredients.	- What have we learned from our ancestors? Children can complete design criteria based on client's request. Children can sketch four poster ideas indicating where the bulb will be located for each. Children can review their ideas against design criteria and peer feedback. Children can assemble an electric poster including a functional simple circuit with a bulb.	flashing LED panel or another pattern when the button is pressed. Children can identify errors by comparing their code to the correct example. Children can explain the basic functionality of their finished program. Children can create annotated diagrams to help illustrate how their product is worn. Children can explain what is meant by, 'point of sale display'
--	--------------------------------	--	---	--	---	--

Cross Curricular Application
Progressive Strands

					Children can acknowledge with a brief explanation the need to mount the poster on corrugated card. Children can test that the simple circuit works by adding a battery. Children can evaluate their electric posters in a letter to a client - Writing for different purposes.	Children can follow basic design requirements using CAD, drawing at least one shape with a text box and bright colours, following a demonstration. Children can evaluate their design using a focus group.
Year 4	Pavilion	Fastenings	Slingshot car	Adapting recipes	Torches	Mindful moments timer
	Children can produce a range of free-standing frame structures of different shapes and sizes. Children can design a structure that is	Children can identify the features, benefits and disadvantages of range of fastening types. Children can write design criteria and	Children can work independently to produce an accurate, functioning car chassis. Children can design a shape that is suitable for the project.	Children can describe features of biscuits using taste, texture and appearance. Children can follow a recipe with support.	Children can identify electrical products and explain why they are useful.	Children can state and describe the advantages and disadvantages of existing timers.

Cross Curricular Application
Progressive Strands

	strong, stable and aesthetically pleasing. Children can select appropriate materials to create a stable, free standing frame structure.	design a product that meets the criteria. Children can make a template. Children can assemble their final piece using any stitch there are comfortable with - Drawing on learning from cross stitch in year 3 and running stitch in year 2.	Children can attempt to reduce air resistance though the design of shape. Children can produce panels that will fit the chassis and can be assembled effectively using the tabs they have designed. Children can construct car bodies effectively. Children can conduct a trial accurately and draw conclusions and improvements from the results.	Children can use a budget to plan a recipe. Children can adapt a recipe without using additional ingredients.	Children can help to make a working switch. Children can identify the features of a torch and how it works. Children can describe what makes a torch successful. Children can create suitable designs that fit the success criteria and their own design criteria. Children can create a functioning torch with a switch according to their design criteria.	Children understand how virtual micro:bit features could be used as part of a design idea. Children can use research to inform design criteria. Children can write a program that displays a timer. Children can suggest where errors are, if testing is unsuccessful by comparing the correct code to their own. Children can state key functions in the program editor.
--	--	--	--	---	--	---

Cross Curricular Application
Progressive Strands

						Children can evaluate the immediate appeal of the virtual micro:bit timer and how it might function. Children can express which stages of the project they enjoyed or found challenging. Children can explain the need for a company to stand out against competition and state the importance of logos in business. Children can recall and describe the name and use of the key tool used in
--	--	--	--	--	--	--

Cross Curricular Application
Progressive Strands

						Sketchpad (CAD software). Children can fulfil the design requirements of the logo. Children can evaluate the product using feedback from the user.
Year 5	Bridges	Stuffed toys	Pop up book	Developing a recipe	Doodlers	Monitoring Devices
	Children can identify stronger and weaker shapes and identify which shapes could increase strength. Children can identify specific types of structure. Children can use a cutting mat and sandpaper to perfect their design.	Children can design a toy considering components and shapes. Children can create an appropriate template. Children can join fabric using a blanket stitch. Children can neatly cut fabric. Children can use applique or decorative stitching	Children can produce a suitable plan for each page of their book. Children can produce the structure of the book. Children can assemble the components necessary. Children can use spacers to hide mechanical elements. Children use a range of mechanisms and	Children can describe the process of beef production. Children can research a traditional recipe and make changes to it. Children can add nutritional value to a recipe by selecting ingredients. Children can prepare and cook a version of Bolognese sauce.	Children can identify simple circuit components, (battery, bulb and switch) with a basic explanation of their function. Children can explain what a series circuit is. Describe a motor as a circuit	To carry our research to develop design criteria. To write a program to monitor the ambient temperature, including an alert. To generate creative and unique micro:bit case,

Cross Curricular Application
Progressive Strands

	Children can identify some areas for improvement, reinforcing their bridges as necessary.	to decorate their design - Year 3 learning revisited. Children can identify what worked well and areas for improvement.	structures to illustrate their story and make it interactive for the users. Children can use appropriate materials and caption to illustrate the story.		component that changes electrical energy into movement. Children can provide examples of a motorised product. Children can suggest a way to change the electrical configuration. Children can explain in an investigation report, each of the changes they made and the effect that it had. Children can identify a list of required materials. Children can explain the steps to	stand or housing ideas. To learn about and practise 3D CAD skills.
--	--	---	---	--	---	--

Cross Curricular Application
Progressive Strands

					assemble a doodler. Children can write instructions to build a functional circuit. Children can provide suggestions to improve a peer's set of instructions.	
Year 6	Shop	Mother's Day bag	Automata toys	Three course meal	Steady hand game	Navigating the world

Cross Curricular Application
Progressive Strands

	Children can apply design criteria to their work. Children make suitable change to their work after peer evaluation. Children can improve quality of their rough designs. Children can secure their structure to a base and make landscape features to enhance.	Children can consider a range of factors in their design criteria and use this to create a design. Children can use a template to mark and cut out a design. Children can use a running stitch to join fabric - Year 2 learning revisited. Children can attach a secure fastening as well as decorative objects. - Year 4 learning revisited. Children can evaluate their final product.	To prepare wood for assembly by measuring, marking and cutting each piece. To assemble the automata frame components and supports with the help of an exploded diagram. Year 3 learning revisited. To explain the relationship between cam profiles and follower movement to inform a design decision. To apply the housing and finishing touches to the automata frame.	Children can find a suitable recipe for their course. Children can record the relevant ingredients and equipment needed. Children can follow a recipe including the correct quantities of each ingredient. Children write a recipe, explaining the process. Children can explain where certain key foods come from before they appear on supermarket shelves.	Children can explain simply what is meant by 'form' (the shape of a product) and 'function' (how a product works). Children can state what they like and dislike about an existing toy and why. Children can learn about the skills developed through play and apply this knowledge in a survey of children's toys. Children can identify the components of a steady hand game. Children can create a secure base for their	To write a design brief and criteria based on a client request. To write a program to include multiple functions as part of a navigation device. To develop 3D CAD skills to produce a virtual model. To present a pitch to 'sell' the product to a specified client.
--	--	---	---	---	---	---

Cross Curricular Application
Progressive Strands

					game with neat edges that relates to their design. Children can make and test a functioning circuit and assemble it within a case.	
--	--	--	--	--	--	--

Cooking and
Nutrition

Cross Curricular Application
Progressive Strands

P.E: Healthy Me

Science:

Animals
including
Humans

Wellbeing:

Staying
Healthy,
Healthy Eating
and Healthy
Living