

Year	Autumn		Spring		Summer	
EYFS	By the end of EYFS children at the expected level of development will: - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Use a range of small tools, including scissors, paint brushes and cutlery; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories. More details of the EYFS curriculum to follow.					
1	Mechanisms - Moving Story Book		Structures - Windmills		Textiles - Puppets	Cooking and Nutrition Smoothies
	(Children experiment with sliders before planning and making three pages of a moving story book, based on a familiar story. They will draw the page backgrounds, make the moving parts and assemble it.)		(Inspired by the song, 'Mouse in a windmill', children design, decorate and build a windmill for their mouse client to live in, developing an understanding of different types of windmill, how they work and their key features.)		(Children explore different ways of joining fabrics before creating their own hand puppets based upon characters from a well-known fairytale. Throughout they work to develop their technical skills of cutting, glueing, stapling and pinning.)	(Children handle and explore fruits and vegetables and learn how to identify which category they fall into, before undertaking taste testing to establish their chosen ingredients for the smoothie they will make a design packaging for)
	Knowledge	Skills	Knowledge	Skills	Knowledge	Skills
	To explore making mechanisms	Technical knowledge	To include individual preferences and requirements in my design	Design	To join fabrics together using different methods	Technical knowledge
	To design a moving story book	Design	To make a stable structure	Technical knowledge	To use a template to create my design	Design
					To join two fabrics together accurately	Make
	To construct a moving picture	Make	To assemble the components of my structure	Make	To embellish my design using joining methods	Evaluate
					To identify if a food is a fruit or a vegetable	Technical knowledge
	To evaluate my finished product	Evaluate	To evaluate my project and adapt my design	Evaluate	To taste and compare fruit and vegetables	Design
					To make a fruit and vegetable smoothie	Make
				To evalute the taste of my smoothie.	Evaluate	
2	Structures - Chair for a Bear		Textiles - Pouches		Mechanisms - Making a Moving Monster	Cooking and Nutrition - A balanced diet
	(Using the tale of Goldilocks and the Three Bears as inspiration, children help poor Baby Bear by making him a brand new chair. When designing the chair, they consider his needs and what he likes and explore ways of building it so that it is a strong and stable structure and doesn't break again!)		(Having looked at ways to join fabric in Year 1, children are given their first opportunity to sew in this topic. By making their own template, children can ensure that their pieces of fabric will be exactly the right size. With their fabric cut out, pupils use a simple running stitch to join two pieces together before decorating the front of it, according to their designs.)		After learning the terms; pivot, lever and linkage, children set to designing a monster that will move using a linkage mechanism. After practising making linkages of different types and varying the materials they use, children can also bring their monsters to life with the gift of movement.)	(Through their exploration of what makes a balanced diet, children taste test food combinations of different food groups. They will also aim to make a wrap that includes a healthy mix of protein, vegetables and dairy, and learn about the term 'hidden sugars'.)
	Knowledge	Skills	Knowledge	Skills	Knowledge	Skills
	To explore structures and stability of different shapes	Technical knowledge	To sew a running stitch	Technical knowledge	To look at objects and understand how they move	Technical knowledge
					To explore different design options	Design
	To explore strength in different structures understand that the shape of the structure affects its strength	Design	To design a pouch	Design	To make a moving monster	Make
					To evaluate how functional my monster is and whether it meets the Design Criteria.	Evaluate
	To make a structure according to design criteria.	Make	To join fabrics using a running stitch	Make	To know what makes a balanced diet	Technical knowledge
					To taste test food combinations	Design
	To evaluate my finished product	Evaluate	To evaluate my own designs	Evaluate	To make a healthy wrap	Make
To review my design					Evaluate	

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3	Structures - Constructing a Castle	Electrical Systems - Static Electricity	Mechanisms - Pneumatic Toys		Textiles - Cushions	Food - Eating Seasonally
	(Learning about the features of a castle, children design and make one of their own. They will also be using configurations of handmade nets and recycled materials to make towers and turrets and constructing a base to secure them)	Children are introduced to static electricity and based on scientific understanding of positive and negative charges. They observe the effects of static electricity on objects such as plastic straws, tissue paper and glitter. They will then consider ways of using static electricity as part of a simple game that they will make.	Pupils design and create a toy with a pneumatic system, learning how trapped air can be used to create a product with moving parts while also building on their design knowledge. They will then be introduced to thumbnail sketches and exploded diagrams		(Having already learnt the basics of sewing and decorating fabric in earlier years, this topic offers extra challenge by introducing two new skills to add to their repertoire: cross stitch and appliqué. After learning these techniques, they apply their knowledge to the design, decoration and assembly of their very own cushions)	(Children discover when and where fruits and vegetables are grown and also learn about seasonality in the UK. They will also learn about the relationship between the colour of fruits and vegetables and their health benefits by making three dishes using seasonal ingredients.)
	Knowledge	Skills	Knowledge	Skills	Knowledge	Skills
	To identify features of a castle	Technical knowledge	To understanding how pneumatic systems work	Technical knowledge	To know how to sew cross-stitch and appliqué	Technical knowledge
	To design a castle	Design			To design a product and its template	Design
	To construct 3D nets	Make	To design a toy which uses a pneumatic system	Design	To decorate fabric using appliqué and cross stitch and assemble	Make
	To evaluate my final product	Evaluate			To evaluate my cushion	Evaluate
	To understand static electricity	Technical knowledge	To create a pneumatic system	Make	To know that climate affects food growth	Technical knowledge
	To design a game aimed at a target audience	Design			To create a recipe that is healthy and nutritious using seasonal vegetables	Design
	To make and test my designs	Make	To test and finalise ideas again design criteria	Evaluate	To safely follow a recipe when cooking	Make
To evaluate my game	Evaluate	To review my design			Evaluate	
4	Electrical Systems - Making a Torch	Mechanisms - Making a Sling Shot Car	Textiles - Fastenings		Structure - Pavilions	Food - Adapting a recipe
	In this topic, children apply their scientific understanding of electrical circuits to create a torch made from easily available materials and objects. They will also design and evaluate their product against set design criteria.	Children transform lollipop sticks, wheels, dowels and straws into a moving car. They will be using a glue gun to construct the materials, making the launch mechanism, designing and also making the body of the vehicle using nets and assembling these to the chassis.	Building upon their sewing skills from previous years, this topic sees the children designing and creating a book sleeve; exploring a variety of fastenings and selecting the most appropriate one for their design. Pupils have greater creative freedom at every stage of the project		(Pupils explore pavilion structures, learning about what they are used for and investigating how to create strong and stable structures before also designing and creating their own pavilions, complete with cladding)	(Children work in groups to adapt a simple biscuit recipe, to create the tastiest biscuit. While making they will also ensure that their creation comes within the given budget of overheads and costs of ingredients)
	Knowledge	Skills	Knowledge	Skills	Knowledge	Skills
	To learn about electrical items and how they work	Technical knowledge	To identify and evaluate different types of fastenings and To explain the advantages and disadvantages of each fastening type	Technical knowledge	To create a range of different shaped frame structures	Technical knowledge
	To design a torch	Design			To follow a baking recipe	Technical knowledge
	To make a torch	Make	To design a product to meet a design criteria	Design	To create a range of different shaped frame structures	Design
	To evaluate a torch	Evaluate			To design a biscuit to a given budget	Design
	To build a car chassis	Technical knowledge	To assemble my book jacket	Make	To build a frame structure and add cladding to a frame structure	Make
	To design a shape that reduces air resistance	Design			To make a biscuit that meets a given design brief	Make
	To make a model based on a chosen design	Make	To test my completed product.	Evaluate	To test my completed product.	Evaluate
	To test my completed product.	Evaluate			To test my completed product.	Evaluate

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5	Mechanisms - Pop Up Book	Electrical Systems - Electronic Greeting Card	Structure - Bridges		Textiles - Stuffed Toys	Food - What could be healthier?
	After choosing a simple story or nursery rhyme, children create a four-page pop-up storybook design. They will also add accompanying captions, incorporating a range of mechanisms and decorative features, including: structures, levers, sliders, layers and spacers.	This unit builds on pupils' knowledge of how to incorporate electrical circuits into products from Y4. Children explore how circuits can be adapted to suit different purposes, explore series circuits and recreate one using conductive adhesive tape. They then apply this knowledge to design and create an electronic greeting card.	This topic develops children's understanding of secure structures and introduces them to measuring, sawing and joining wood accurately. After learning about different types of bridges and also exploring how the strength of structures can be affected by the shapes used. Children create their own wooden bridge and test its durability.		Creating their own stuffed toy is a really fun project as children can bring their drawings to life and can make them as challenging or as simple as they choose. Not only does this topic give them the chance to apply skills they have learned in previous topics, it also introduces them to a new stitch – blanket stitch.	Focusing on nutrition, children research and modify a traditional bolognese sauce recipe to make it healthier. They will cook their new and improved versions, making appropriate packaging and also learn about the ethical considerations of farming cattle.
	Knowledge	Skills	Knowledge	Skills	Knowledge	Skills
	To that structures use the movement of the pages to work	Technical knowledge	To explore how to reinforce a beam (structure) to improve its strength	Technical knowledge	To ensure that my template is proportional	Technical knowledge
	To design a pop-up book	Design			To design a stuffed toy	Design
	To follow my design brief to make my pop up book	Make	To design a wooden truss bridge.	Design	To sew blanket stitch	Make
	To explain what they have designed and how they have made each mechanism and structure.	Evaluate			To evaluate my stuffed toy.	Evaluate
	To explore, analyse and evaluate greeting cards	Technical knowledge	To build a wooden truss bridge.	Make	To understand where food comes from	Technical knowledge
	To create a moodboard to help inspire and generate a range of design ideas	Design			Based on research, suggest healthy substitutions and additions to a recipe	Design
	To create my final electronic greeting card, compete with a functional series circuit.	Make	To evaluate my truss bridge against a specification.	Evaluate	To complete a food product	Make
	To evaluate my final greeting card design.	Evaluate			To evaluate ideas and products against own design criteria and consider the views of others to improve my work.	Evaluate
6	Electrical Systems - Steady Hand Game	Textiles -Waistcoats	Structure - Playground		Mechanisms - Automatic Toys	Food - Come Dine With Me
	(Using their understanding of electrical systems and design, pupils are challenged with designing and creating a steady hand game. Pupils will use nets to create their bases and their knowledge of electrical circuits to build a circuit with a buzzer which closes when the handle makes contact with the wire frame)	Using the skills they've developed over the past few years, children select fabrics, use templates, pin, decorate and stitch to create a waistcoat for a person or purpose of their choosing.	This topic draws upon pupils' skills and knowledge of structures, challenging them to design and create a model of a new playground featuring five apparatus, made from three different structures. Creating a footprint as the base, pupils can practise visualising objects in plan view and also get creative with their use of natural features and cladding for their structures		Using woodworking materials and skills, pupils construct a window display using an automata mechanism; measuring and cutting their materials, assembling the frame, choosing cams, designing the characters that sit on the followers and also finishing with a foreground and background.	Working in groups, children research and prepare a three-course meal taught as a rotational activity over three lessons. They will taste-test and score their food and when they aren't cooking, they will research the journey of their main ingredient from 'farm to fork' or write a favourite recipe to include in a class cookbook.
	Knowledge	Skills	Knowledge	Skills	Knowledge	Skills
	To research and analyse a range of children's toys	Technical knowledge	To know that there are different types of structures used in playground apparatus	Technical knowledge	To prepare (mark, cut, saw) the materials required for the automata frame	Technical knowledge
	To design a steady hand game	Design			To design a automata frame	Design
	To construct a electronic game.	Make	To design a playground with a variety of structures	Design	To assemble the automata frame components and supports with the help of an exploded-diagram	Make
	To evaluate my electronic game.	Evaluate			To discuss how the cam exploration went, and how they used this information to inform my design decisions.	Evaluate
	To accurately mark and cut fabric accordingly.	Technical knowledge	To build a range of structures	Make	To research and design a three-course meal	Technical knowledge
	To design a waistcoat	Design			To write up a recipe	Design
	To assemble a waistcoat.	Make	To discuss how well my finished playgrounds meet these criteria.	Evaluate	To prepare a meal using a recipe	Make
	To evaluate my work according to the design criteria	Evaluate			To taste my finished meal and one other pair's and evaluate them.	Evaluate