		AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
Nursery ex		<u>D&T - Hibernation Box</u> - Creating with materials to join different materials and textures together to create a hedgehog habitat. <u>By the end of this unit-</u> Children will be able to manipulate and explore various materials, e.g., clay/card/fabric. <u>Linked Text - It was a cold</u> , dark night- Tim Hopgood.		DT - Create a Rainbow book Create a book by joining different materials together to create a textured effect. By the end of this unit - children will explore using different joining techniques to create texture.		DT Unit Vehicle -Creating with materials. Children to make a simple model, joining different materials and textures to create an emergency service vehicle. Linked text: Amazing machines - Flashing fire engine By the end of this unit - children will explore using different joining techniques to build and create a vehicle	
Reception		DT Unit- Egg Cosy Create an egg cosy to keep the egg warm By the end of this unit- children will understand why it is important to keep an egg warm. Children will understand which materials are best suited for the cosy and they will be able to explain their reason. Children will be able to use scissors correctly and safely. DT Unit - Textiles- Christmas Stocking Design and create a stocking for Christmas to store things in. By the end of this unit; children will be able to use language of designing and making (join, build, shape, longer, shorter, heavier etc.) Use scissors correctly and safely. Use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture. Share their creations, explaining the process they have used, reflecting back on the process.		DT Unit- Food Assemble dips and dippers from for a healthy hero. By the end of this unit_children will be able to; understand some food preparation tools, techniques and processes, understand how to make an activity safe and hygienic, understand the need for variety in food and begin to understand that eating well contributes to good health. DT Unit - Structures- Wooden Toys Link to History unit - past and present-day toys. Explore wooden toys from the past. Replicate a toy from the past. Focused learning - Observational drawing of favourite toy. By the end of this focused learning children will be able show accuracy when drawing the toy in order that it shows a likeness to the object. DT Unit - Food Create healthy food products using fruit. By the end of this unit_children will be able to; understand some food preparation tools, techniques and processes, understand how to make an activity safe and hygienic, understand the need for variety in food and begin to			

Year 1		Textiles unit Problem: How can we keep our hands warm in Winter? Design Brief: Design & make a clothing item to keep your hands warm at playtimes. Skills Cut material, join the seam using Velcro.	Food unit Problem: Can you make fruit look appealing and interesting to eat? Design Brief: Design & make an appetising fruit salad. Skills Cut food safely, use simple hand tools safely. Community Link: Greenacres	Structures & Mechanisms unit Problem: Can you make an aeroplane that can be moved in a flight pattern? Design Brief: Design and make an aeroplane that can be moved in all directions for Emma Jane (character) to help her fly over the places she visits. Skills Join materials using tape, glue and paper fasteners. Investigate making simple sliding & lever mechanisms.	
Year 2	Textiles unit Problem: How can we help Paddington to get his sandwiches to London safely. Design Brief: Design and make a bag for Paddington to take his marmalade sandwiches to London. Skills (running stitch / template making, cutting fabric)		Food unit Problem: How can we make a snack fit for a king? Design Brief: Design and make a cake for a banquet for King Charles II. Skills To weigh ingredients to use in a recipe. To describe the ingredients used when making a product.		Structures & Mechanisms unit Problem: Can you make a toy that moves? Design Brief: Design & make a moon buggy that can be pushed or pulled by a Reception child. Skills To join wood accurately. To use wheels and axels.

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Year 3			Textiles unit Problem: How can an explorer carry their belongings safely? Design Brief: Design and make a drawstring bag to hold belongings for an explorer. Skills Use Tie Dye to camouflage. Create a hem (for drawstring using running stitch Join the seam using over stitch Use running stitch to add initials			Structure unit Problem: How can you keep all your treasures safe together? Design Brief: Design and make a container for storing your own items of 'treasure'. Skills Know how to construct strong, stiff shell structures. Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.
Year 4	Textiles unit Problem: Can you make an eye-catching cushion for a display? Design Brief: Design and make a cushion to be displayed in a chocolate shop window to advertise a product to children. (seam sewing machine & decorations using cross stitch or chain stitch.) Skills Create a seam, Use a sewing machine, Applique designs onto the cushion. Use decorative stitches, e.g. cross stitch / chain stitch.		Structures and Mechanisms Unit Problem: Can you create light? Design Brief: Design and make a spotlight for a theatre company to use in a performance. Skills Make a simple circuit incorporating a battery, light bulb, switch and connecting wires. Investigate making switches that operate in different ways (press, turn, push) Select appropriate tools and techniques for making their product. Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. Join and combine materials and components accurately in temporary and permanent ways		Food unit Problem: How can we use dough to make an appealing Italian based product? Design Brief: Design and make a dough-based product for an Italian feast. Skills Measure ingredients. Knead dough. Use tools safely to slice, chop and grate ingredients.	

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Year 5		Textiles unit Problem: How can we help keep our heads warm in the cold weather? Design Brief: Design and make a hat to keep our heads warm in cold weather. Skills Measure circumference of heads. Create seams Use running stitch, back stitch, blanket stitch. Sewing machine seams. CAD and 3D printer to create a badge to attach to hat	Structures & Mechanisms unit Problem: Can a toy move? Design Brief: Design and make a moving toy suitable for a Year 1 child to play with. (moving toys - cam mechanism) Skills Create a CAM mechanism. Use a drill to make off centre hole. Cut and join wood using accurate measurements. Use techniques to strengthen and stiffen structures. To understand that different shaped CAMs create different movements			
Year 6	Structures & Mechanisms unit Problem: Can a vehicle carry a fragile object safely? Design Brief: Design and make a vehicle which can carry an egg safely over different terrain. Skills design a product that requires pulleys or gears. To control speed and direction using pulleys and gears. To create electrical circuits with switches. CAD and 3D printer to create body of vehicle. Use joining techniques to reinforce a structure.		Food unit Problem: What constitutes a healthy dish? Design Brief: Design and make a healthy dish for a demonstration aimed at Y6 children on healthy living. Skills Work within a budget to create a meal Follow a complex recipe. Understand how an oven/hob is used to heat and cook food. Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.			Textiles unit Problem: How can people keep their clothes clean whilst working in a factory? Design Brief: Design and make an item of clothing for someone to wear when working in a factory (e.g. apron) Skills Measure people to work out sizes. Create templates. Pin, sew and stitch materials together. To use a sewing machine. Combine different fabric shapes. Seam allowances.