

	Textiles: Puppets	Mechanisms: Making a moving story book	Cooking and Nutrition: Smoothies
Y1	Exploring different ways to join fabric, including glueing, pinning and stapling.	The children learn about the direction of movements and explore the mechanisms required to make these work by creating examples of side-to-side sliders and up-and-down sliders from templates.	Identifying fruits by finding seeds.
	Using a simple template to cut out material for a puppet design based on a character.	The children plan their moving storybooks against a design criteria using differentiated templates, deciding on the backgrounds, moving parts, mechanisms and direction of movement required.	Identifying whether a fruit or vegetable grows aboveground or underground.
	Joining pieces of fabric using a preferred technique of pinning, stapling or glueing.	Referring to their design templates from Lesson 2, children make the various elements of their moving storybooks, including bridges and guides to restrict the movement of their sliders where necessary.	Identifying whether a fruit or vegetable grows aboveground or underground.
	Carefully selecting materials to decorate a hand puppet in keeping with a chosen storybook character.	Pupils test their finished storybooks with their target audience of younger children and evaluate their end result against the initial design criteria.	Tasting ingredients and choosing combinations for a recipe.
			Making a smoothie by following a recipe
	Mechanisms: Fairground Wheels	Cooking and Nutrition: Balanced Diet	Structures: Creating Baby Bear's Chair
Y2	Understanding how wheels work and creating a design for a fairground wheel.	Sorting foods to discover the food groups	Testing the stability of 3D shapes using a scientific approach.
	Exploring and experimenting to work out the most suitable materials and techniques for creating a Ferris wheel model.	Designing a menu with dishes containing different food groups.	Building and testing different paper structures to destruction.
	Applying an understanding of structures to build and assemble a frame and wheel, then adapt the design as necessary.	Practising cutting, grating, snipping and spreading skills.	Designing a chair for Baby Bear by apply a knowledge of how to build strong and stable structures.
	Creating pods and decorative touches whilst making sure the wheel still rotates freely.	Responding to a design brief and taste testing ingredients.	Solving problems to adapt the structure of Baby Bear's chair as necessary.
	Cooking and Nutrition: Eating Seasonally	Mechanical Systems: Pneumatic Toys	Textiles: Egyptian collars
Y3	Recognising that different foods grow in different climates.	Investigating and exploring different pneumatic systems.	Learning how to sew cross-stitch and to appliqué, children practise their sewing skills before receiving a brief in Lesson 2.
	Identifying seasonal foods grown in the UK.	Investigating and exploring different pneumatic systems.	Children learn about Ancient Egyptian Usekh/ Wesekh collars and their purpose before being challenged with a brief to develop design criteria and collar designs that will represent the children's unique personalities.
	Practising food preparation skills.	Creating a working pneumatic system and casing for a toy.	Children learn to use the template they developed in Lesson 2 to cut fabric to the same shape. This will form the base of their collar.
	Creating design criteria based on a design brief.	Decorating and assembling the final components to complete a pneumatic toy.	Pupils decorate their collars to meet their design criteria and final design, using a variety of techniques, including appliqué, pinking and adding embellishments.
	Designing a seasonal food tart mock-up.		
	Digital World: Mindful Moments Timer	Structures: Pavilions	Electrical Systems: Torches
Y4	Exploring and evaluating existing timers and different mindfulness products.	Exploring different frame structures to test which are the most stable using toothpicks and sweets.	The children explore the difference between 'electrical' and 'electronic' and revisit how to create a simple circuit
	Developing design criteria to ensure that a design brief is met.	Designing an aesthetically pleasing pavilion structure using prior knowledge about stable structures.	The children will evaluate a range of different torches and identify the features of a torch: housing, reflector, circuit and switch
	Developing design criteria to ensure that a design brief is met.	Building a strong frame structure for a pavilion using a range of materials.	The children will evaluate a range of different torches and identify the features of a torch: housing, reflector, circuit and switch
	Developing concepts to communicate unique ideas about a product.	Experimenting with different decorative techniques and materials to clad a pavilion structure.	The children build the circuit and housing for their torches, closely following their designs from the previous lesson.
	Using computer-aided design to create a brand identity.		
	Digital World: Monitoring devices	Mechanical Systems: Making a Pop Up Book	Cooking and Nutrition: Developing a Recipe
Y5	Exploring the thermometer's history and researching key animal facts to write informed design criteria for an animal monitoring device.	Designing a pop-up book for younger children	Creating an informative visual outlining the production of beef products.
	Exploring the thermometer's history and researching key animal facts to write informed design criteria for an animal monitoring device.	Creating the structure of the book and beginning to make the mechanisms for the pop-up features.	Changing ingredients to create a healthy bolognese recipe.
	Programming an animal monitor, using booleans and 'if' statements, to alert the owner when the ambient temperature is too hot or cold.	Securing the mechanisms onto the pages and giving the book a professional finish using layers and spacers to hide the mechanisms.	Evaluating the nutritional content of ingredients and making choices based on this.
	Programming an animal monitor, using booleans and 'if' statements, to alert the owner when the ambient temperature is too hot or cold.	Children add the finishing touches to their books, adding illustrations, colour and writing captions	Practising relevant food preparation skills for a recipe.
			Designing and making a jar label.
	Textiles: Waistcoats	Structures: Playgrounds	Electrical Systems: Steady Hand Game
Y6	Designing a waistcoat based on a theme.	Designing five pieces of playground apparatus using three different structures.	Applying fit-for-purpose design to researching and evaluating the form and function of toys.
	Using a template to mark the outline of the waistcoat panels on fabric before cutting and pinning them.	Building structures for the playground apparatus designed in the previous lesson.	Creating perspective drawings when designing a 'steady hand game'.
	Sewing panels of a waistcoat together using a simple running stitch.	Building, developing and testing the remaining playground structures.	Creating perspective drawings when designing a 'steady hand game'.
	Decorating a waistcoat with appliqué, beads, buttons or decorative stitching.	Building, developing and testing the remaining playground structures.	Using nets to create and decorate the base blocks of a steady hand game in line with the design criteria.

Cooking and nutrition
Textiles
Structures
Mechanical systems
Digital
Electrical systems