

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Cooking and nutrition: Smoothies		Mechanisms: Making a moving story book		Structures: Windmills	
Year 2	Cooking and nutrition: Balanced diet		Mechanisms: Moving Monsters		Textiles: Pouches	
Year 3	Cooking and nutrition: Eating seasonally		Structure: Castles		Textiles: Cross-stitch and appliqué (cushions)	
Year 4	Mechanical systems: Making a slingshot car		Electrical systems: Torches			Cooking and nutrition: Adapting a recipe
Year 5	Structures: Bridges		Textiles: Stuffed toys			Cooking and nutrition: Developing a recipe
Year 6	Mechanical systems: Automata toys				Electrical systems: Steady hand game	

Key Knowledge

	Year 1	Year 2
Mechanisms	• Make a product which moves • Cut materials using scissors • Begin describing materials used and their properties using some subject specific vocabulary • Join materials and components together in different ways	• Cut materials precisely using scissors • Explain how different parts move and why they have chosen moving parts • Join materials together as part of a moving product • Describe materials used and their properties using a range of vocabulary
Structures	• Identify the key features of an existing product • Plan and describe an innovative product by using pictures and diagrams. • Explain their ideas orally • Identify appropriate tools and materials and explain their choices • Identify how to and make their structure stronger, stiffer or more stable • Arrange pieces of the construction before building • Join materials and components together in different ways • Measure materials to use in a model or structure • Use joining, folding or rolling to make it stronger • Make a structure/model using different materials	
Cooking and Nutrition	• Recognise a range of basic ingredients • Explain that ingredients are available from different shops, markets, or grown at home • Explain that some ingredients need to be prepared before they can be eaten • Explain that some equipment has a special job and know what that special job is, e.g. colander, peeler • Understand that food is a basic requirement of life • Talk about foods they like and dislike with reasons	• Use a range of simple equipment • Use basic cooking skills to make dishes • Identify that different foods need to be stored differently • Explain the hygiene and safety rules, which need to be followed before, during and after cooking • Understand that we need food to grow, be active and maintain health
Textiles		• Generate ideas through comparing existing products • Plan and describe an innovative product by using pictures, diagrams and words • Identify and categorise a range of fabrics by properties and purpose • Identify and discuss when patterns are used in textile design & what patterns they can see. • Use tools safely • Use a range of fabrics to weave a pattern • Separate and bond fabrics together • Build an image using fabrics • Create a product using textiles
Electrical systems		
Mechanical systems		

	Year 3	Year 4
Mechanisms		
Structures	• Plan and design using accurate diagrams and labels • To give fluent explanations of their choices of materials • Sequence the main stages of making their product • Experiment with a range of techniques to increase stability in a structure • Create realistic plans e.g. what tools, equipment, materials and components they will use and give reasons why • Join materials effectively to build a product	
Cooking and Nutrition	• Use the eat-well plate and consider the needs of different people when planning and cooking food • Demonstrate an understanding of seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed • Explain the components of a healthy diet	• Know that there is a vast range of ingredients used and grown around the world • Understand and apply the principles of a healthy and varied diet • Suggest and demonstrate healthier ways to prepare and cook foods • Research, plan and prepare a range of savoury dishes • Suggest and demonstrate healthier ways to prepare and cook foods • Read and interpret basic nutrition information on food packaging when making choices • Understand that different types of food provide different amounts of energy
Textiles	• Use drawing to create initial designs • Reflect on research and create designs. • Explain and justify use of colours and fabric • Make an annotated final design with suitable fabric samples	
Electrical systems		• Understand and use electrical systems in their products e.g. series of circuits incorporating switches, bulbs, buzzers and motors • Understand and use electrical components to create a simple circuit • Make a product which uses electrical components
Mechanical systems		• Apply their understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use some mechanical systems in their products e.g. gears, pulleys, cams, levers and linkages • Make a product which uses mechanical components.

	Year 5	Year 6
Mechanisms		
Structures	• Select the most appropriate materials, tools and techniques to use and explain why • Measure, cut and assemble with increasing accuracy, explaining the process verbally • Use equipment and tools with increased accuracy and safety • Manipulate materials effectively (eg. Shaping and moulding) and accurately using a range of tools and equipment	
Cooking and Nutrition	• Write and follow recipes • Weigh and measure accurately • Select and use the most appropriate ingredients and equipment to plan and cook a range of dishes • Demonstrate an extended range of food skills and techniques • Explain how to use date marks and food storage instructions on food packaging • Demonstrate good food safety and hygiene when cooking	
Textiles	• Identify their target audience and use this to generate ideas • Carry out research to inform plans e.g. surveys, interviews, questionnaires and using internet resources • Consider culture and society in their designs • Consider the use of the product when selecting materials • Choose appropriate tools and materials to ensure that the final product will appeal to the audience • Utilise a range of tools and equipment with good accuracy and effectiveness, within established safety parameters • Identify and begin to explore specialist tools, techniques and processes • Begin to use a range of simple stitches • Apply a range of joining techniques (textiles) using different tools	
Electrical systems		• Explain and understand how to use electrical systems in their products, then apply what they know e.g. series of circuits incorporating switches, bulbs, buzzers and motors • Use different kinds of circuits in their product to improve it • Explain how to use mechanical systems in their products, then apply that knowledge e.g. gears, pulleys, cams, levers and linkages • Incorporate a switch into their product
Mechanical systems		• Understand and use mechanical systems in their products e.g. gears, pulleys, cams, levers and linkages • Understand and explain why mechanical gears and pulleys control speed and movement • Refine a product after testing.