

	<i>Cook Well, Eat Well</i>	<i>Making It Move</i>	<i>Greenhouse</i>
Year 3	<ul style="list-style-type: none"> Identify the main food groups (carbohydrates, protein, dairy, fruits and vegetables, fats and sugars). Describe how key events in design and technology have shaped the world. Explain the importance and characteristics of a healthy, balanced diet. Use appliances safely with adult supervision. View progression Prepare and cook a simple savoury dish. Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account. 	<ul style="list-style-type: none"> Explain how an existing product benefits the user. Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products. Use tools safely for cutting and joining materials and components. Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account. 	<ul style="list-style-type: none"> Understand how key events and individuals in design and technology have helped shape the world. Understand that a greenhouse is a building where plants can grow in a warm and protected environment. Greenhouses let light in through transparent or translucent walls and roofs. Windows, vents or fans provide ventilation Explain how an existing product benefits the user. Explain the similarities and difference between the work of two designers. Know that diagonal struts create triangular shapes within a frame structure and that by adding diagonal struts it adds strength and stability. Create shell or frame structures using diagonal struts to strengthen them Use tools safely for cutting and joining materials and components Plan which materials will be needed for 3D design and explain why they have been selected. Suggest improvements to their products and describe how to

			implement them, beginning to take the views of others into account.
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Year 4	<i>Fresh Food, Good Food</i>	Functional and Fancy Fabrics	Tomb Builders
	<ul style="list-style-type: none"> Investigate and identify the design features of a familiar product. Identify and name foods that are produced in different places in the UK and beyond. View progression Identify and use a range of cooking techniques to prepare a simple meal or snack. Design a healthy snack or packed lunch and explain why it is healthy. Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvement 	<ul style="list-style-type: none"> Know that fabrics can be natural or synthetic. Natural fabrics include cotton, silk and wool. Synthetic fabrics include Lycra, polyester and nylon. Choose from a range of materials, showing an understanding of their different characteristics Investigate and identify the design features of a familiar product. Know that design features include purpose and function, appearance, quality, material, size, colour, pattern, embellishment, durability and usability. Explain how and why a significant designer or inventor shaped the World (William Morris) Hand sew a hem or seam using a running stitch. Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements 	<ul style="list-style-type: none"> Understand that simple machines make physical jobs easier by changing the strength or direction of a force. Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products. Know that characteristics of materials, such as rigidity, strength and smoothness will affect the success of a working model. Choose from a range of materials, showing an understanding of their different characteristics Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements

	<i>Moving Mechanisms</i>	<i>Eat the Seasons</i>	<i>Architecture</i>
Year 5	<ul style="list-style-type: none"> Understand that pneumatic systems use energy that is stored in compressed air to do work, such as inflating a balloon to open a model monster's mouth. Know that pneumatic systems are low maintenance, compact and safe as only air can leak from the system. Explain how the design of a product has been influenced by the culture or society in which it was designed or made. Use mechanical systems in their products, such as pneumatics. Test and evaluate products against a detailed design specification and make adaptations as they develop the product. Know that different mechanisms and systems can work together to perform a function. A strong and stable structure is necessary to support different mechanisms in a machine. Understand that various methods can be used to support a framework. These include cross braces, guy ropes and diagonal struts. Frameworks can be built using lolly sticks, skewers and bamboo canes 	<ul style="list-style-type: none"> Know that food hygiene is important to prevent the spread of disease-causing microorganisms. Understand that foods can be prepared and cooked in different ways to achieve different results. Know that a balanced diet gives your body all the nutrients it needs to function correctly. This means eating a wide variety of foods in the correct proportions. Describe what seasonality means and explain some of the reasons why it is beneficial Evaluate meals and consider if they contribute towards a balanced diet. Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish Evaluate meals and consider if they contribute towards a balanced diet 	<ul style="list-style-type: none"> Explain how the design of a product has been influenced by the culture or society in which it was designed or made. Describe the social influence of a significant designer or inventor. Understand that the ancient Greeks developed the Classical form of architecture. They used columns to support roofs, which had three main orders; Doric, Ionic and Corinthian. Ancient Greek buildings were symmetrical and beautiful. Roofs had a triangular shaped part, called the pediment, and a wide horizontal part, usually decorated with a frieze, called the entablature. Greek buildings were usually made from limestone or marble. Explain how the design of a product has been influenced by the culture or society in which it was designed or made Build a framework using a range of materials to support mechanisms. Use pattern pieces and computer-aided design packages to design a product Test and evaluate products against a detailed design specification and

	<ul style="list-style-type: none">• Build a framework using a range of materials to support mechanisms.• Name and select increasingly appropriate tools for a task and use them safely.• Survey users in a range of focus groups and compare results.		make adaptations as they develop the product.
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	<i>Food for Life</i>	<i>Engineer</i>	<i>Make Do and Mend</i>
Year 6	<ul style="list-style-type: none"> • Create a detailed comparative report about two or more products • Analyse how an invention or product has significantly changed or improved people's lives • There are different categories of processed foods. Ultra-processed foods have been through significant changes, have added ingredients and often a low nutritional value. • A processed food is changed during preparation and includes processes, such as cooking, freezing, pasteurising, or the addition of ingredients. Pros of processed foods include convenience and availability. Cons include a lack of nutrients and unhealthy ingredients. • Follow a recipe that requires a variety of techniques and source the necessary ingredients independently. • Explain how organic produce is grown. • Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others. 	<ul style="list-style-type: none"> • Analyse how an invention or product has significantly changed or improved people's lives. View progression • Present a detailed account of the significance of a favourite designer or inventor • Know that the four main bridge types are the beam bridge, arch bridge, truss bridge and suspension bridge. • Create a detailed comparative report about two or more products or inventions. • Select the most appropriate materials and frameworks for different structures, explaining what makes them strong. View progression • Choose the best materials for a task, showing an understanding of their working characteristics • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. • Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. • Demonstrate modifications made to a product as a result of ongoing 	<ul style="list-style-type: none"> • Know that Make Do and Mend was a campaign run by the Ministry of Information to encourage people to recycle and repurpose their old clothes rather than buy new. • Analyse how an invention or product has significantly changed or improved people's lives. • Deconstruct garments to identify how they were made, the materials used and their properties. • Understand the differences between hand stitches include running stitch, blanket stitch and whip stitch. • Select appropriate tools for a task and use them safely and precisely • Understand that pinning with dressmaker pins and tacking with quick, temporary stitches holds fabric together in preparation for and during sewing • Pin and tack fabrics in preparation for sewing and more complex pattern work. • Create a detailed comparative report about two or more products or inventions

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