

Design and technology long-term plan

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Sunnyhurst Cycle A	Construction Make a toy that has free running wheels		Food linked to geography and Handa's Surprise. Fruit salad or fruit kebabs		Textiles Create a felt animal or flower. Stuffed with scented petals from the garden	
	<p>Key Coverage Join appropriately for different materials and situations e.g. glue, tape. Try out different axle fixings and their strengths and weaknesses. Make vehicles with construction kits which contain free running wheels. Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels. Roll paper to create tubes. Cut dowel using hacksaw and bench hook. Attach wheels to a chassis using an axle. Mark out materials to be cut using a template</p>		<p>Key Coverage Develop a food vocabulary using taste, smell, texture and feel. Group familiar food products e.g. fruit and vegetables. Explain where food comes from. Cut, peel, grate, chop a range of ingredients Work safely and hygienically. Understand the need for a variety of foods in a diet. Measure and weigh food items, non-statutory measures e.g. spoons, cups</p>		<p>Key Coverage Cut out shapes which have been created by drawing round a template onto the fabric. Join fabrics by using e.g. running stitch, glue, staples, over sewing, tape. Decorate fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons. Colour fabrics using a range of techniques e.g. fabric paints, printing, painting.</p>	
Sunnyhurst Cycle B	Paper skills design and make a miniature autumn woodland		Mechanism make an animal with moving parts		Food Design and make a healthy sandwich with a seaside theme	
	<p>Key Coverage Roll paper to make tubes Pleat paper Fold and pleat to create springs Tear paper Coil paper Fringe with scissors Cut along lines, straight and curved. Use hole punch Snip and spread to create a firm base Create a box corner Create a simple pop up</p>		<p>Key Coverage Join appropriately for different materials and situations e.g. glue, tape. Roll paper to create tubes. Mark out materials to be cut using a template. Fold, tear and cut paper and card. Cut along lines, straight and curved. Use a hole punch. Insert paper fasteners for card. Experiment with levers and sliders to find different ways of making things move in a 2D plane.</p>		<p>Key Coverage Develop a food vocabulary using taste, smell, texture and feel. Group familiar food products e.g. fruit and vegetables. Explain where food comes from. Cut, peel, grate, chop a range of ingredients Work safely and hygienically. Understand the need for a variety of foods in a diet. Measure and weigh food items, non-statutory measures e.g. spoons, cups.</p>	

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<u>Anglezarke</u> Cycle A	Mechanisms wheels and axles				Structures Moon landing platform rocket launch	
	<p>Key Coverage Join appropriately for different materials and situations e.g. glue, tape.</p> <p>Try out different axle fixings and their strengths and weaknesses.</p> <p>Make vehicles with construction kits which contain free running wheels.</p> <p>Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels.</p> <p>Cut dowel using hacksaw and bench hook.</p> <p>Attach wheels to a chassis using an axle.</p> <p>Mark out materials to be cut using a template.</p>				<p>Key Coverage Explore how to make structures stronger.</p> <p>Investigate different techniques for stiffening a variety of materials.</p> <p>Test different methods of enabling structures to remain stable.</p> <p>Join appropriately for different materials and situations e.g. glue, tape.</p> <p>Mark out materials to be cut using a template.</p> <p>Use a glue gun with close supervision.</p>	
<u>Anglezarke</u> Cycle B	Construction Use mechanical systems such as gears, pulleys, levers and linkages		Food A healthy picnic		Textiles Decorated T shirt applique linked to theme	
	<p>Key Coverage Develop vocabulary related to the project.</p> <p>Use mechanical systems such as gears, pulleys, levers and linkages.</p> <p>Use lolly sticks/card to make levers and linkages.</p> <p style="padding-left: 40px;">Use linkages to make movement larger or more varied</p>		<p>Key Coverage Develop sensory vocabulary/knowledge using, smell, taste, texture and feel.</p> <p>Analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury).</p> <p>Follow instructions/recipes.</p> <p>Make healthy eating choices – use the <i>Eatwell plate</i>.</p> <p>Join and combine a range of ingredients.</p> <p>Explore seasonality of vegetables and fruit.</p> <p>Find out which fruit and vegetables are grown in countries/continents studied in Geography.</p> <p style="padding-left: 40px;">Develop understanding of how meat/fish are reared/caught.</p>		<p>Key Coverage Develop vocabulary for tools materials and their properties.</p> <p>Understand seam allowance.</p> <p>Join fabrics using running stitch, over sewing, blanket stitch.</p> <p>Prototype a product using J cloths.</p> <p>Use prototype to make pattern.</p> <p>Explore strengthening and stiffening of fabrics.</p> <p>Explore fastenings (inventors?) and recreate some.</p> <p>Sew on buttons and make loops.</p> <p>Use appropriate decoration techniques.</p>	

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Roddlesworth	Mechanical and Electrical Systems and ICT		Structures Design and create a model of Greek temple		Cooking and nutrition	
Cycle A	Designing and making a pully system using electronics		Design and create a model of Greek temple		Design, create and cost a healthy savoury dish for a family of four	
	<p>Key Coverage Develop a technical vocabulary appropriate to the project. Use mechanical systems such as cams, pulleys and gears. Use electrical systems such as motors. Program, monitor and control using ICT.</p>		<p>Key Coverage Use the correct terminology for tools materials and processes. Use bradawl to mark hole positions. Use hand drill to drill tight and loose fit holes. Cut strip wood, dowel, square section wood accurately to 1mm. Join materials using appropriate methods. Build frameworks to support mechanisms. Stiffen and reinforce complex structures.</p>		<p>Key Coverage Prepare food products taking into account the properties of ingredients and sensory characteristics. Weigh and measure using scales. Select and prepare foods for a particular purpose. Work safely and hygienically. Show awareness of a healthy diet (using the eatwell plate). Use a range of cooking techniques. Know where and how ingredients are grown and processed. Consider influence of chefs e.g. Jamie Oliver and school meals, Hugh Fearnley-Whittingstall and sustainable fishing etc.</p>	
Roddlesworth	Cooking and nutrition		Textiles		Structures	
Cycle B	Fish cakes investigate sustainable fishing		Laptop, ipad, mobile phone sleeve		Aqueduct/viaduct models/prototype	
	<p>Key Coverage Prepare food products taking into account the properties of ingredients and sensory characteristics. Weigh and measure using scales. Select and prepare foods for a particular purpose. Work safely and hygienically. Show awareness of a healthy diet (using the eatwell plate). Use a range of cooking techniques. Know where and how ingredients are grown and processed. Consider influence of chefs e.g. Jamie Oliver and school meals, Hugh Fearnley-Whittingstall and sustainable fishing etc.</p>		<p>Key Coverage Use the correct vocabulary appropriate to the project. Create 3D products using patterns pieces and seam allowance. Understand pattern layout. Decorate textiles appropriately (often before joining components). Pin and tack fabric pieces together. Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision). Combine fabrics to create more useful properties. Make quality products.</p>		<p>Key Coverage Use the correct terminology for tools materials and processes. Use bradawl to mark hole positions. Use hand drill to drill tight and loose fit holes. Cut strip wood, dowel, square section wood accurately to 1mm. Join materials using appropriate methods. Build frameworks to support mechanisms. Stiffen and reinforce complex structures.</p>	



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Roddlesworth	Cooking and nutrition Designing and making WW2 Ration food		Mechanisms Gears & motors		Structures Creating a picture frame	
Cycle C						
	<p>Key Coverage Develop sensory vocabulary/knowledge using, smell, taste, texture and feel. Analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury). Follow instructions/recipes. Make healthy eating choices – use the <i>Eatwell plate</i>. Join and combine a range of ingredients. Explore seasonality of vegetables and fruit. Find out which fruit and vegetables are grown in countries/continents studied in Geography. Develop understanding of how meat/fish are reared/caught.</p>		<p>Key Coverage Develop a technical vocabulary appropriate to the project. Use mechanical systems such as cams, pulleys and gears. Use electrical systems such as motors. Program, monitor and control using ICT.</p>		<p>Key Coverage Use the correct terminology for tools materials and processes. Use bradawl to mark hole positions. Use hand drill to drill tight and loose fit holes. Cut strip wood, dowel, square section wood accurately to 1mm. Join materials using appropriate methods. Build frameworks to support mechanisms. Stiffen and reinforce complex structures.</p>	