

	KS1	Year 3			Year 4			Year 5			Year 6		
Technical knowledge	<p>Know about the simple working characteristics of materials and components and the movement of simple mechanisms such as levers, sliders, wheels and axles</p> <p>Know that structures can be made stronger, stiffer and more stable.</p> <p>Know that 3-D textiles product can be assembled from two identical fabric shapes.</p> <p>Know that food ingredients should be combined according to their sensory characteristics.</p> <p>Know that the correct technical vocabulary for the projects they are undertaking.</p>	<p>Explain how the technical parts of their product work.</p> <p>Understand the terms aesthetic appeal and functional quality.</p> <p>Know how to combine components for a functional purpose.</p> <p>Know that mechanical and electrical systems have an input, process and output.</p> <p>Know that a 3D textiles product can be made from a combination of fabric shapes.</p> <p>Know that a recipe can be adapted by adding or substituting one or more ingredients.</p>			<p>Explain how the technical parts of their product work.</p> <p>Use the terms aesthetic appeal and functional quality.</p> <p>Know how to successfully combine components for a functional purpose and durable product.</p> <p>Know that mechanical and electrical systems have an input, process and output.</p> <p>how to program a computer to control their products.</p> <p>Know that a 3D textiles product can be made from a combination of fabric shapes.</p> <p>Know that a recipe can be adapted by adding or substituting one or more ingredients.</p>			<p>Explain how the technical parts of their product work.</p> <p>Use a wide range of vocabulary based around aesthetics and functionality.</p> <p>Know how to successfully combine components for a functional and durable product.</p> <p>Know that mechanical and electrical systems have an input, process and output.</p> <p>how mechanical systems such as gears, cams and pulleys create movement.</p> <p>Know that a recipe can be adapted by adding or substituting one or more ingredients.</p> <p>Know how to reinforce and strengthen a 3D framework.</p> <p>Know how to design 3D structures on a CAD programme</p>			<p>Explain how the technical parts of their product work.</p> <p>Use a wide range of vocabulary based around aesthetics and functionality.</p> <p>Know how to successfully combine components for a high quality functional and durable product.</p> <p>Know that mechanical and electrical systems have an input, process and output.</p> <p>Know how simple electrical circuits and components can be used to create functional products</p> <p>Program a computer to monitor changes in the environment and control their products</p> <p>Know that a recipe can be adapted by adding or substituting one or more ingredients</p>		
	Early years/ year 1/ year 2	Healthy Drinks	Hand puppets	Healthy cereal packaging	Healthy pizzas	Bunting	Pop-up books	Bread making	Bridges	Inclusive playground CAD	Electrical circuit	(Junior Apprentice)	Healthy soup
Topics		Healthy, Ingredients, Fruit, vegetables vitamin, taste/ texture/ looks/ smell mineral, obesity, product, preference market, consumer, customer, consistency, taste, target market, seasonal, chop, slice, hygiene, net, evaluation	decoration, purpose, running stitch, over stitch, cross stich, needle, material feature, feature stitch, invisible stitch, sew, thread, eye, knot, material, suitable, design, template, accuracy evaluate	Brief, Target market, On the market, Research, Packaging, Net, Logo, Brand name, Font, Colour, Target, Audience, Digital Sketchpad, Template, construct	Carbohydrates, Proteins, Fat, Sugars, Taste, Texture, Appearance, Smell, Hygienic, Product, Variety, Equipment Instructions, Exploded diagram, Annotate, Improve, Assess, Reflect, Honest, Food technology	evaluate product, bunting, existing, decorative, function, durable, attractive, theme, fabric, template, pattern, embellishments, running stitch, secure, oversee, binca, design criteria, generate, develop,	Pop-up Interactive Mechanism Input Motion Slider, Flap, Market Prototype, Pivot Layer Lever Spacer	yeast, micro-organism, fermentation, reaction, germs, excrete, nutrients, prove, knead, rise	effective, bascule/ folding/curling/ vertical lift/ swing bridge, tourism, residential, recreation, commuters, triangulation stability, construction, compression, regular and irregular polygons, cross-brace, racking, prototype, bridge, specification	Computer-aided design 2D, 3D shapes Modify Child development, Communication, Physical challenge, Emotional development, Sensory learning Inclusion Barrier, Parallel play	mass production, retail market, construction, electrical circuit, components, lever, push/slide switch/ bulb/ connectors/ wires disconnect, electrical charge, voltage, 'Cost per unit', short circuit, rechargeable batteries, prototype, engagement adapt3	Brief Initial design proposal Final design proposal Target market Projected profit Advertising	Unsaturated, saturated fat, balanced diet, calories, utensil, savoury, dietary restrictions, imports, food mileage, sustainability, bacteria, contaminant, hazards, commercial,

											Select/ move/ delete/ resize/ group/ rotate/ combine/ lift/ position/ duplicate/ placeholder			chitting, harvesting recipe peel/ slice, dice/ blend, simmer/ tender, root vegetable green vegetable
Skills	Designing	State what products they are designing and making Say whether products are for themselves / others Describe their products and how they work Use simple design criteria to help develop their ideas. Generate ideas by drawing on their own experiences Use knowledge of existing products to help come up with ideas Develop and communicate ideas by talking and drawing using ICT where appropriate. Model ideas by exploring materials, components and construction kits and by making templates and mock-ups.	Describe the purpose of their product and how it will appeal to their intended user. Gather information about the needs and wants of the intended user (includes initial taste testing of foods). Develop their own design criteria and use it to inform their ideas. Use annotated sketches to communicate their ideas. Generate realistic ideas, focusing on the needs of the user and availability of resources.	Describe the purpose of their product and how it will appeal to their intended user. Gather information about the needs and wants of the intended user and present this information. Develop their own design criteria and use it to inform their ideas. Model their ideas using pattern pieces when making textiles. Use annotated sketches and exploded diagrams to communicate their ideas. Generate realistic ideas, focusing on the needs of the user and availability of resources. Generate realistic ideas, focusing on the needs of the user and availability of resources.	Gather information about the needs and wants of the intended user (interview,) and choose how to communicate the data clearly. Describe the purpose of their product and how it will meet the needs, wants, preferences and values of the intended user. Model their ideas using prototypes and pattern pieces. Develop a more detailed design specification to prepare for making products, which may be negotiated and agreed between the pupil, as designer, and his or her end user. Use annotated sketches, exploded diagrams, cross sectional drawings and computer-aided design to communicate their ideas. Generate innovative ideas, taking account of time constraints, resources and cost.	Gather information about the needs and wants of the intended user and choose how to communicate the data clearly (survey/questionnaires/web-based resources). Describe the purpose of their product and how it will meet the needs, wants, preferences and values of the intended user. Model their ideas using prototypes and pattern pieces. Develop a more detailed design specification to prepare for making products. Communicate their ideas using the most appropriate form they choose eg. annotated diagram, exploded diagram etc. Generate innovative ideas, taking account of time constraints, resources and cost.								
	Making:													
	Planning	Say how they will make their products . Plan by suggesting what to do next. Select from a range of tools and equipment, explaining their choices Select from a range of materials and components according to their characteristics	Select suitable tools, equipment, materials and components and discuss why they have chosen them. Order the main stages of making.	Select suitable tools, equipment, materials and components and discuss why they have chosen them.	Select suitable tools, equipment, materials and components and discuss why they have chosen them. Formulate the main stages of making.	Produce appropriate lists of tools, equipment and materials that they need. Formulate step-by-step plans as a guide to making								
	Practical techniques	Follow procedures for safety and hygiene Use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components	Generate and follow health and safety procedures which includes food hygiene. Measure, mark out, cut, assemble and join materials with some accuracy. In sewing to measure, tape or pin, cut and join fabric with a running stitch with some accuracy.	Generate and follow health and safety procedures. Measure, mark out, cut, assemble and join materials with some accuracy. Sew using a range of different stitches eg. running stitch, backstitch. When sewing, to measure, pin, cut and join fabric with increasing accuracy.	Generate and follow health and safety procedures. Measure, mark out, cut, assemble and join materials with accuracy. Apply finishing techniques for aesthetic appeal with accuracy. Demonstrate resourcefulness when tackling practical problems.	Generate and follow health and safety procedures which include understanding how to avoid accidents in the kitchen Measure, mark out, cut, assemble and join materials with accuracy. Apply finishing techniques for aesthetic appeal with accuracy.								

	Measure, mark out, cut, shape and join materials and components.	Apply finishing techniques for aesthetic appeal with some accuracy.	Apply finishing techniques for aesthetic appeal with increasing accuracy.		Demonstrate resourcefulness when tackling practical problems.
Evaluating	Talk about their design ideas and what they are making Make simple judgements about their products and ideas against design criteria	Discuss how the ground-breaking products of key inventors, designers, engineers, chefs and manufacturers have shaped our world. Evaluate strengths and areas for development in ideas and products. Analyse how well products are designed and made; why materials are chosen; how well they work and achieve purpose; how well they meet users' needs. Investigate where/ when and how products are designed/ made and who did this. Investigate whether products can be recycled/ reused Consider the views of others and themselves when thinking about how to improve their work.	Investigate how the ground-breaking products of key inventors, designers, engineers, chefs and manufacturers have shaped our world. Evaluate strengths and areas for development in ideas and products Analyse how well products are designed and made; why materials are chosen; how well they work and achieve purpose; how well they meet users' needs. Investigate where/ when and how products are designed/ made and who did this. Investigate whether products can be recycled/ reused. Use their design criteria when evaluating their completed products. Consider views of others, including users to improve work, to include the redesign of a final product, taking into account these ideas.	Consider the consequences of the ground-breaking products of key inventors, designers, engineers, chefs and manufacturers and how they have shaped our world. Analyse how well products are designed and made; why materials are chosen; how well they work and achieve purpose; how well they meet users' needs. Investigate where/ when and how products are designed/ made and who did this. Investigate whether products can be recycled/ reused. Evaluate strengths and areas for development in ideas and products. Consider views of others, including users to improve work. Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make.	Analyse the wider implications of the ground-breaking products of key inventors, designers, engineers, chefs and manufacturers and how they have shaped our world. Analyse how well products are designed and made; why materials are chosen; how well they work and achieve purpose; how well they meet users' needs. Investigate where/ when and how products are designed/ made and who did this. Investigate whether products can be recycled/ reused. Investigate how much products cost to make/ how innovative products are/ how sustainable the materials in products are/ what impact products have beyond their intended purpose. Evaluate strengths and areas for development in ideas and products. Consider views of others, including users, to improve work. Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make.

Food and Nutrition

Know that all food comes from plants or animals; know that food has to be farmed, grown elsewhere (e.g. home) or caught; know how to name and sort foods into the five groups in the Eatwell Guide; that everyone should eat at least five portions of fruit and vegetables every day; can prepare simple dishes safely and hygienically, without using a heat source; use techniques such as cutting, peeling and grating.				
Year 3	Year 4	Year 5	Year 6	
Healthy Eating				
<p>Food (and some drinks) provide energy for the body so we can be active and stay healthy.</p> <p>I know that the word 'diet' means the amount and range of food eaten.</p> <p>I know that a variety and balance of food and drink is needed to make a healthy diet.</p> <p>I know that all food and drink provide nutrients.</p> <p>I know that the body needs water to stay alive and that this can be found in drinks and in foods.</p>	<p>I know that most foods and drinks contain a main nutrient but they will also contain other nutrients in smaller amounts.</p> <p>We need to eat foods in the proportions shown by the Eatwell Guide (as well as eating a variety of foods from within the groups) to have a healthy diet.</p> <p>I can identify and classify ingredients in composite dishes according to the Eatwell Guide food groups.</p> <p>I can use the Eatwell Guide model and messages to help me make healthy choices and plan healthy meals and menus for myself and others.</p>	<p>I know that it is important to be aware of portion size when choosing food and drinks.</p> <p>I can identify and interpret the nutrition panel on food packaging and use it to help me make food choices.</p>	<p>I understand that I need the nutrients - carbohydrate, protein, fat, vitamins and minerals - as well as fibre and water to be healthy.</p> <p>I know that some foods provide fibre which is not digested but helps to keep the digestive system healthy.</p> <p>I can explain the basic function of each nutrient (carbohydrate, protein, fat, vitamins and minerals)?</p> <p>I know that energy is provided by the nutrients carbohydrate, protein and fat.</p> <p>I know that different types of food provide different amounts of energy.</p> <p>I know that energy provided by food and drink is measured in kilojoules (metric) and kilocalories (imperial).</p> <p>I know that different amounts of energy are needed by the body for different activities.</p>	

<p>I know that I need to have 6-8 drinks a day and more if it is hot or I am active.</p> <p>I know that different factors can affect our food choices and I can give some examples of these. E.g. availability, cost, advertising, pressure.</p>			<p>I know that different people need different amounts of energy.</p>
<p>To know where food comes from</p>			
<p>Seasonal fruits</p> <ul style="list-style-type: none"> - Home grown - Tropical 	<p>To know how vegetables that may be used on their pizzas are grown and harvested</p>	<p>To have awareness of how our diet in the UK is influenced by many cultures.</p> <p>To know the main processes in commercial bread production in the UK.</p> <p>To be able to make bread on small, domestic scale.</p>	<p>I know that what people around the world eat depends on reasons such as availability, preference, resources, time, culture and religion.</p> <p>I know that what is eaten in different countries around the world can look different but it usually includes combinations of foods from the same the Eatwell Guide groups.</p> <p>To know how potatoes are grown and harvested.</p> <p>To know that herbs are added to certain dishes for flavour and to be able to grow some herbs from seed.</p> <p>To understand the phrase 'food mileage'.</p> <p>To know the meaning of 'sustainable farming' and how it can be achieved.</p>
<p>Tasting To be willing to taste different ingredients and describe them using an increasingly large sensory vocabulary.</p>			
<p>Cooking equipment</p>			
<p>To name and use an increasing range of cooking skills with confidence and accuracy when preparing ingredients.</p>	<p>To name an extended range of cooking equipment and explain its function and how it's designed for a purpose.</p>		
<ul style="list-style-type: none"> - Claw grip - Bridge hold 	<ul style="list-style-type: none"> - Claw grip - Bridge hold - Dice - Slice - Finely chop 	<p>Fermentation</p> <p>Measure accurately with scales and a measuring jug</p> <p>Weigh</p> <p>Stir thoroughly</p> <p>Fold ingredients together</p> <p>Knead</p> <p>Prove</p> <p>Shape with greater precision</p>	<p>To select the most appropriate equipment for what I am making.</p> <p>Season</p> <p>Cut (firm foods with a vegetable knife) using:</p> <ul style="list-style-type: none"> - Fork secure - Claw grip - Bridge hold - Snip - Peel with a peeler - Dice - Slice - Press (garlic press) - Make stock - Finely chop - Simmer - Blend - Fry - Cook until 'tender'
<p>Health and safety</p>			
<p>I know that there are date marks ('use by' and 'best before') on foods and I can identify and use these.</p>	<p>To know how to get myself ready to prepare and cook food safely:</p> <p>Tie back long hair</p> <p>Roll up sleeves</p> <p>Remove any jewellery</p> <p>Wear an apron</p> <p>Wash hands</p>	<p>To know that bacteria can cause food contamination and that this is a source of food poisoning.</p> <p>To know the basic steps in food hygiene that help to keep them and others safe:</p> <p>Tidy work space</p> <p>Avoid touching face and hair</p> <p>Wash up equipment</p> <p>Clean surfaces.</p>	<p>To know how to store food safely to reduce bacterial contamination and keep it at its best E.g. raw meat on bottom shelf etc.</p> <p>To identify and plan to avoid hazards regarding food hygiene, food safety and personal hygiene.</p>

		To know that leftover food must be covered and stored correctly and eaten within a time frame.	
Adapting recipes		I can modify a recipe to make it healthier or suited to different people.	
			To know about the working practices of chefs, how they respond to needs and wants of customers and how they make decisions about recipes and menu choices.
Recycling	To try to minimise waste, recycle packaging and compost appropriate food waste when I am cooking.		