



Kippax Greenfield Primary School
Design Technology Knowledge and Skills Progression

EYFS

	Knowledge	Skills	Vocabulary
Taught through each topic			Plan Idea Tear Draw Cut
Design	Select appropriate resources Use contexts set by the teacher and child Use language of designing and making		
Make	Construct with a purpose, using a variety of resources Use simple tools and techniques Build / construct with a wide range of objects Select tools & techniques to shape, assemble and join Replicate structures with materials / components Discuss how to make an activity safe		
Evaluate	Adapt work if necessary Dismantle, examine, talk about existing objects/structures Consider and manage some risks Practise some appropriate safety measures independently Talk about how things work Look at similarities and differences between existing objects / materials / tools Show an interest in technological toys Describe textures		

KS1

	Knowledge	Skills	Vocabulary
Materials / structures	Understand that soft and hard materials are used for different reasons. Know which materials will hold their shape.	Measure materials Describe some different characteristics of materials Join materials in different ways Use joining, rolling or folding to make it stronger	Purpose Develop Design Model
Mechanisms	Know how levers, sliders, wheels and axles operate.	Use mechanisms including levers, sliders, wheels and axles.	User Evaluate Join

Textiles	Understand that a 3D textile structure can be made from two identical fabric shapes.	Measure textiles. Join textiles together to make a product. Carefully cut textiles to produce accurate pieces. Explain choices of textile.	Combine Materials Lever Slider Wheel
Taught through each topic			Axle
Design	Explain what the product is for, and how it will work Use pictures and words to plan, begin to use models Design a product for myself following design criteria Research similar existing products Explain what I want to do and describe how I may do it Explain purpose of product, how it will work and how it will be suitable for the user Describe design using pictures, words, models, diagrams, begin to use ICT Design products for myself and others following design criteria Choose best tools and materials, and explain choices Use knowledge of existing products to produce ideas		Fold Fix Join Names of basic materials Names of basic shapes Decorate Straight Curve Forwards Backwards
Make	Name and use familiar tools and materials Use a ruler to draw a straight line Use scissors to cut a straight line Join and combine materials and components using a variety of temporary methods e.g. glue, masking tape, twisting etc. Use simple finishing techniques to improve the appearance of their product		
Evaluate	Talk about my work, linking it to what I was asked to do Talk about existing products considering: use, materials, how they work, audience, where they might be used Talk about things that other people have made Begin to talk about what could make product better Describe what went well, thinking about design criteria Talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion Talk about what I would do differently if I were to do it again and why		

Lower KS2

	Knowledge	Skills	Vocabulary
Materials / structures	Understand different materials are used for different purposes. Know whether materials can be recycled or reused.	M easure carefully to avoid mistakes Work accurately to make cuts and holes Join materials Make strong structures	Prototype Annotated sketch Functional Measure Mark

Textiles	Understand that a simple fabric shape can be used to make a 3D textiles project.	Thread a needle Use a running and overcasting stitch	Accurately Thread
Electronics	Know how an electrical circuit works.	Create basic electrical circuits involving a bulb or buzzer	Running stitch Three-dimensional (3-D)
Taught through each topic			Structure
Design	Use research for design ideas. Show design meets a range of requirements and is fit for purpose Describe purpose of product Follow and begin to create own design criteria Have at least one idea about how to create product and suggest improvements for design. Produce a plan and explain it to others Say how realistic plan is. Include an annotated sketch Make and explain design decisions considering availability of resources Explain how product will work Make a prototype Begin to use computers to show design.		Edge Face Length Width Pre-existing Generate Specification Process Framework Angles Temporary Permanent
Make	Select appropriate tools and materials for making the product Measure and mark out materials with different shapes and angles Cut straight and curved lines with scissors accurately Cut straight lines with a craft knife accurately Hold and use a saw to cut fine wood Use glue guns to join materials Apply a range of finishing techniques with some accuracy		Overcast stitch Compartment Wire Electricity Circuit Conductor Insulator
Evaluate	Refer to design criteria while designing and making Use criteria to evaluate product Begin to explain how to improve original design Evaluate existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose		Battery Net Breadth

Upper KS2

	Knowledge	Skills	Vocabulary
Mechanisms	Know about some designers and engineers of ground-breaking products.	Use mechanical systems in their products such as gears, pulleys, cams, levers and linkages	Functionality Authentic
Textiles	Research and discuss how sustainable materials are.	Measure, tape or pin, cut and join fabric with some accuracy Use a range of fasteners e.g. Velcro, poppers, buttons, zips etc.	Cross stitch Reinforce Structure Electric

		To use a cross stitch	Circuit
Electronics		Use electrical systems in their products such as series circuits incorporating switches, bulbs, buzzers and motors Program, monitor and control electrical products	Switch Motor Linear Rotary
Taught through each topic			Innovative
Design	<p>Draw on market research to inform design</p> <p>Use research of user's individual needs, wants, requirements for design</p> <p>Identify features of design that will appeal to the intended user</p> <p>Create own design criteria and specification</p> <p>Come up with innovative design ideas</p> <p>Follow and refine a logical plan.</p> <p>Use annotated sketches, cross-sectional planning and exploded diagrams</p> <p>Make design decisions, considering, resources and cost</p> <p>Clearly explain how parts of design will work, and how they are fit for purpose</p> <p>Independently model and refine design ideas by making prototypes and using pattern pieces</p> <p>Use computer-aided designs</p>		Annotate Shape Score Layer Templates Components Adhesive Fault Seam Hem Fastenings
Make	<p>Draw on market research to inform design</p> <p>Use research of user's individual needs, wants, requirements for design</p> <p>Identify features of design that will appeal to the intended user</p> <p>Create own design criteria and specification</p> <p>Come up with innovative design ideas</p> <p>Follow and refine a logical plan.</p> <p>Use annotated sketches, cross-sectional planning and exploded diagrams</p> <p>Make design decisions, considering, resources and cost</p> <p>Clearly explain how parts of design will work, and how they are fit for purpose</p> <p>Independently model and refine design ideas by making prototypes and using pattern pieces</p> <p>Use computer-aided designs</p>		Input Process Output Transmit
Evaluate	<p>Evaluate quality of design while designing and making; is it fit for purpose?</p> <p>Keep checking design is best it can be.</p> <p>Evaluate ideas and finished product against specification, stating if it's fit for purpose</p> <p>Test and evaluate final product; explain what would improve it and the effect different resources may have had</p> <p>Do thorough evaluations of existing products considering: how well they've been made, materials, whether they work, how they've been made, fit for purpose</p> <p>Evaluate how much products cost to make and how innovative they are</p> <p>Consider the impact of products beyond their intended purpose</p>		

FOOD TECHNOLOGY

	Knowledge	Skills	Vocabulary
EYFS	<p>Know whether an ingredient is from an animal or plant.</p> <p>Know some foods are hot and some foods are cold.</p> <p>Understand that food that has been touched by dirty hands or dropped on the floor is dangerous and can make someone ill.</p> <p>Understand that some foods have to be washed before they are safe to eat.</p> <p>Know that we need to wash hands, tie back hair and wear an apron to cook.</p>	<p>Follow verbal instructions from recipes.</p> <p>Wash and rinse fresh ingredients.</p> <p>Drain ingredients using a colander.</p> <p>Tear soft foods such as bread and lettuce.</p> <p>Mix dry ingredients using a wooden spoon.</p> <p>Mash soft ingredients using a fork or masher.</p> <p>Scoop ingredients.</p> <p>Say whether they like or dislike an item of food.</p> <p>Clear away dirty equipment by taking it to the sink area.</p>	<p>Wash</p> <p>Drain</p> <p>Tear</p> <p>Mix</p> <p>Mash</p> <p>Scoop</p> <p>Colander</p> <p>Bowl</p> <p>Knife</p> <p>Fork</p> <p>Spoon</p> <p>Fruit</p> <p>Vegetable</p>
Y1	<p>Know whether an ingredient is meat, fruit or vegetable</p> <p>Pick out key instructional vocabulary within recipes</p> <p>Identify which foods need to be kept in fridge</p> <p>Understand that ovens and hobs are hot</p>	<p>Follow simple recipes with support from an adult</p> <p>Follow basic food safety rules when preparing and cooking food</p> <p>Spread soft ingredients using a knife and spatula</p> <p>Slice ingredients into large pieces (ununiformed)</p> <p>Use the claw technique</p> <p>Assemble ingredients in a particular order</p> <p>Comment on why they like or dislike an item of food</p> <p>Rinse equipment such as bowls, pans and chopping boards</p>	<p>Spread</p> <p>Spatula</p> <p>Slice</p> <p>Claw</p> <p>Chopping Board</p> <p>Pan</p> <p>Oven</p> <p>Hob</p> <p>Fridge</p> <p>Ingredients</p> <p>Names of common fruit and vegetables</p>
Y2	<p>Know the 5 main food categories</p> <p>Know how to safely store a range of foods</p> <p>Understand the importance of cleaning after preparation and cooking</p> <p>Know how to stay safe around ovens and hobs</p>	<p>Follow simple recipes</p> <p>Prepare themselves for cooking by following food and hygiene procedures</p> <p>Peel a range of ingredients using hands and a peeler</p> <p>Grate a range of ingredients to different thicknesses</p> <p>Crack an egg with adult support</p> <p>Beat eggs into a consistent mixture</p> <p>Describe the foods they have tasted using vocabulary such as sweet/sour</p>	<p>Hygiene</p> <p>Preparation</p> <p>Fruit</p> <p>Vegetable</p> <p>Meat</p> <p>Dairy</p> <p>Fat</p> <p>Peel</p> <p>Grate</p>

		Wash large equipment such as mixing bowls, pans and chopping boards	Crack Beat Sweet Sour
Y3	<p>Know that foods and our environments contain positive and negative bacteria</p> <p>Understand that different foods come in different packaging</p> <p>Understand what makes a healthy and balanced diet</p> <p>Understand that our food comes from farming, growing and fishing</p> <p>Identify hazards within kitchen environment</p>	<p>Use weighing scales</p> <p>Use a jug to measure liquids</p> <p>Squeeze fruits to release juice using a juicer and hands</p> <p>Use the bridge technique</p> <p>Slice and chop ingredients into uniform chunks</p> <p>Wash equipment including utensils and put away in the appropriate place</p> <p>Discuss the impact of ingredients on taste e.g. If I add more salt ... I can make it spicy by</p>	<p>Appealing</p> <p>Bacteria</p> <p>Packaging</p> <p>Balanced diet</p> <p>Hazards</p> <p>Weighing Scales</p> <p>Jug</p> <p>Squeeze</p> <p>Bridge</p> <p>Utensils</p> <p>Grown</p> <p>Reared</p> <p>Caught</p>
Y4	<p>Know the effects of bacteria on food (mouldy) and our bodies (sickness)</p> <p>Begin to understand appropriate portion sizes for meals and snacks</p> <p>Know that the foods available change depending on season</p>	<p>Use a variety of sieves to sift</p> <p>Use a rubbing technique to mix dry ingredients and fats</p> <p>Roll out dough and mixtures</p> <p>Wash knives carefully</p> <p>Comment on the food, making suggestions on how to improve the taste</p>	<p>Sieve</p> <p>Rubbing</p> <p>Roll</p> <p>Whisk</p> <p>Dough</p> <p>Sweet</p> <p>Savoury</p> <p>Moist</p> <p>Seasonal</p> <p>Fresh</p>
Y5	<p>Understand that certain foods have to be stored separately</p> <p>Understand the ethical concerns around the food we eat</p> <p>Understand social influences on the food we eat such as peer pressure, media, religion</p> <p>Knows how to stay safe in a kitchen environment</p>	<p>Crack an egg independently</p> <p>Separate egg white and yolk</p> <p>Use rubbing technique to create finer crumbs</p> <p>Coat ingredients</p> <p>Finely chop ingredients, using appropriate technique</p> <p>Wash, dry and put away all equipment. Clean working area.</p>	<p>Edible</p> <p>Separate</p> <p>Coat</p> <p>Processed</p> <p>Varied diet</p> <p>Carbohydrate</p> <p>Protein</p> <p>Vitamins</p> <p>Nutrients</p> <p>Knead</p>

Y6	Understand the varying factors in creating a recipe and designing a menu	<p>Find and select the appropriate equipment for the recipe</p> <p>Follow good food safety practises throughout cooking</p> <p>Prepare and combine a wide range of ingredients, choosing the most appropriate method</p> <p>Shape mixtures using hands and tools</p> <p>Score dough to create patterns and detail</p> <p>Layer ingredients, thinking about order and thickness</p> <p>Clean working area throughout cooking process where necessary</p>	<p>Allergy</p> <p>Intolerance</p> <p>Source</p>
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In addition to, each child will take part in one unit (Bake It) which will involve kneading and proving skills.