Design & Technology KS2 Mixed Age Class Progression Document

	Designing	Making	Evaluating	Technical Knowledge	Cooking & Nutrition
	Year A- **Year B-** **See art long term plan for specific textile projects**				**See long term cookery plan**
UKS2	• prove that a design meets a set criteria • design a product and make sure that it looks attractive • choose a material for both its suitability and its appearance • use ideas from other people when designing • produce a plan and explain it • persevere and adapt work when original ideas do not work • communicate ideas in a range of ways, including by sketches and drawings which are annotated • use internet and questionnaires for research and design ideas • take a user's view into account when designing • begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose • create own design criteria • have a range of ideas • produce a logical, realistic plan and explain it to others. • make design decisions considering time and resources. • model and refine design ideas by making prototypes and using pattern pieces • use computer-aided designs	• follow a step-by-step plan, choosing the right equipment and materials • select the most appropriate tools and techniques for a given task, explain choices, considering functionality • make a product which uses both electrical and mechanical components • work accurately to measure, make cuts and make holes • know which tools to use for a particular task and show knowledge of handling the tool • know which material is likely to give the best outcome • measure accurately • explain how product will appeal to an audience • Accurately measure, mark out, cut and shape materials/components • mainly accurately apply a range of finishing techniques • begin to be resourceful with practical problems	• explain how to improve a finished model • know why a model has, or has not, been successful • evaluate and suggest improvements for design while designing and making • evaluate products against specification for both their purpose and appearance • explain how the original design has been improved • present a product in an interesting way • evaluate and discuss existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose • begin to evaluate how much products cost to make and how innovative they are • talk about some key inventors/designers/ engineers/ chefs/manufacturers of groundbreaking products	• know how to strengthen a product by stiffening a given part or reinforce a part of the structure • use a simple IT program within the design • know how to strengthen a product by stiffening a given part or reinforce a part of the structure • use a simple IT program within the design • think about user and aesthetics when choosing textiles • think of a range of ways to join things • begin to understand that a single 3D textiles project can be made from a combination of fabric shapes. • begin to use pulleys or gears	• describe how food ingredients come together • weigh out ingredients and follow a given recipe to create a dish • talk about which food is healthy and which food is not • know when food is ready for harvesting • know how to be both hygienic and safe when using food • bring a creative element to the food product being designed • know how to prepare a meal by collecting the ingredients in the first place • know which season various foods are available for harvesting • explain how food ingredients should be stored and give reasons • work within a budget to create a meal • understand the difference between a savoury and sweet dish • understand and apply principles of a healthy diet. • prepare and cook savoury dishes, range of cooking techniques. • where ingredients are caught and processed. • present product well - interesting, • use range of techniques such as peeling, chopping, slicing, grating, mixing,
Tools	Toys: Saws, Glue guns, Laminator, Drill, Sandpaper, Vice Trains, planes and automobiles: Wire cutter/stripper, Screwdrivers, Craft knives, Safety ruler, Scissors Design:, Wire cutter/stripper, Pliers, sandpaper, Glue guns, saws, craft knives, safety ruler, scissors, sandpaper Space: 3D pens, 3D printer, CAD software In the Garden: Hammer, nails, Sandpaper, Glue guns, saws, craft knives, safety ruler, scissors, sandpaper Holidays: Control IT equipment, children's choice of tools dependent on design chosen				
LKS2	• use research for design ideas • show design meets a range of requirements and is fit for purpose	• select suitable tools and equipment, explain choices in relation to required techniques and use accurately	• refer to design criteria while designing and making • use criteria to evaluate product	• think about user when choosing textiles • join different textiles in different ways • choose textiles considering appearance and functionality	• carefully select ingredients • explain how to be safe/hygienic • think about presenting product in interesting/ attractive ways

	• use cross-sectional planning and annotated sketches • Follow design criteria and the begin to create own • have at least one idea about how to create product and suggest improvements for design. • produce a plan and explain it to others • create a plan which shows order, equipment and tools • 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.	• select appropriate materials, fit for purpose; explain choices • work through plan in order. • realise if product is going to be good quality • measure, mark out, cut and shape materials/components with some accuracy • assemble, join and combine materials and components with some accuracy • apply a range of finishing techniques with some accuracy	• begin to explain how I could 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 • discuss by whom, when and where products were designed • research whether products can be recycled or reused • know about some inventors/designers/ engineers/chefs/manufacturers of ground-breaking products	• Use simple levers • think about how to make product strong • begin to devise a template • explain how to join things in a different way • understand that a simple fabric shape can be used to make a 3D textiles project	• understand ingredients can be fresh, pre-cooked or processed • begin to understand about food being grown, reared or caught in the UK or wider world • describe eat well plate and how a healthy diet=variety / balance of food and drinks • explain importance of food and drink for active, healthy bodies • prepare and cook some dishes safely and hygienically • use some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking
Tools	Toys – Scissors, saws, clamp, glue gun, hole punch Trains, Planes and Automobiles – Glue gun, scissors Zoo – Scissors, sellotape, saw, double sided tape, glue gun, craft knife, PVA, stapler Design – Scissors, microwave, molds, IT Minibeasts – Ruler, pipe, scissors, hole punch, glue gun, syringes, PVA, balloons, craft knife				