



Design and Technology Progression Map

DT Technical Knowledge- Cooking and Nutrition					
-Use the basic principles of a healthy and varied diet to prepare dishes -Understand where food comes from		-Understand and apply the principles of a healthy and varied diet -Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques -Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.			
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> ● describe textures ● wash hands & clean surfaces ● think of interesting ways to decorate food ● say where some foods come from, (i.e. plant or animal) ● describe differences between some food groups (i.e. sweet, vegetable etc.) ● discuss how fruit and vegetables are healthy ● cut, peel and grate safely, with support ● describe “five a day” 	<ul style="list-style-type: none"> ● <i>Understanding the basic principles of a healthy and varied diet is covered in Science</i> 	<ul style="list-style-type: none"> ● carefully select ingredients ● use equipment safely ● think about how to grow plants to use in cooking ● begin to understand food comes from UK and wider world ● describe how healthy diet= variety/balance of food/drinks ● explain how food and drink are needed for active/healthy bodies. 	<ul style="list-style-type: none"> ● <i>Understanding and applying the principles of a healthy and varied diet is covered in Science</i> 	<ul style="list-style-type: none"> ● explain how to be safe / hygienic and follow own guidelines ● present product well - interesting, attractive, fit for purpose ● begin to understand seasonality of foods ● understand food can be grown, reared or caught in the UK and the wider world ● describe how recipes can be adapted to change appearance, taste, texture, aroma ● understand a recipe can be adapted by adding / substituting ingredients 	<ul style="list-style-type: none"> ● <i>Understanding and applying the principles of a healthy and varied diet is covered in Science</i>

Curriculum Objectives to be completed by end of year DT

		<ul style="list-style-type: none"> ● prepare and cook some dishes safely and hygienically ● grow in confidence using some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking ● say where food comes from (animal, underground etc.) 		<ul style="list-style-type: none"> ● describe eat well plate and how a healthy diet=variety / balance of food and drinks ● prepare and cook some savoury dishes safely and hygienically including, where appropriate, use of heat source ● use range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. 	
DT Technical Knowledge- Structures					
<i>Build structures, exploring how they can be made stronger, stiffer and more stable</i>		<i>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</i>			
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> ● begin to measure and join materials, with some support ● describe differences in materials ● suggest ways to make material/product stronger 	<ul style="list-style-type: none"> ● measure materials ● describe some different characteristics of materials ● join materials in different ways ● use joining, rolling or folding to make it stronger ● use own ideas to try to make product stronger 	<ul style="list-style-type: none"> ● use appropriate materials ● work accurately to make cuts and holes ● join materials ● begin to make strong structures 	<ul style="list-style-type: none"> ● measure carefully to avoid mistakes ● attempt to make product strong ● continue working on product even if original didn't work ● make a strong, stiff structure 	<ul style="list-style-type: none"> ● select materials carefully, considering intended use of product and appearance ● explain how product meets design criteria ● measure accurately enough to ensure precision ● ensure product is strong and fit for purpose ● begin to reinforce and strengthen a 3D frame 	<ul style="list-style-type: none"> ● select materials carefully, considering intended use of the product, the aesthetics and functionality. ● explain how product meets design criteria ● reinforce and strengthen a 3D frame

Curriculum Objectives to be completed by end of year DT

DT Technical Knowledge-Mechanical Systems					
<i>-Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</i>		<i>-Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</i>			
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> ● begin to understand how to use wheels and axles 	<ul style="list-style-type: none"> ● use levers or slides 	<ul style="list-style-type: none"> ● select appropriate tools / techniques ● alter product after checking, to make it better ● begin to try new/different ideas ● use simple lever and linkages to create movement ● begin to use pneumatics to create movement 		<ul style="list-style-type: none"> ● select most appropriate tools / techniques ● explain alterations to product after checking it ● refine product after testing ● grow in confidence about trying new / different ideas ● Use cams, wheels, axels, pulleys or gears to create movement ● Name components such as chassis, axel et 	
DT Technical Knowledge-Electrical Systems					
		<i>Understand and use electrical systems in their products (for example, series circuits)</i>			
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

Curriculum Objectives to be completed by end of year DT

		<ul style="list-style-type: none"> ● Learn about static electricity and how it moves objects through attraction or repulsion <i>(objective covered in Mechanisms Pneumatic toys unit)</i> 	<ul style="list-style-type: none"> ● use number of components in circuit ● Know about electrical items and how they work ● Know what a series circuit is ● create a circuit with a switch 		<ul style="list-style-type: none"> ● create and use electric circuits in their designs ● Know how to make electromagnetic motors
DT Technical Knowledge-textiles					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<ul style="list-style-type: none"> ● To know how to join fabric by pinning, stapling or gluing ● join textiles together with a running stitch to make a product, and explain how I did it ● carefully cut textiles to produce accurate pieces ● explain choices of textile ● understand that a 3D textile structure can be made from 		<ul style="list-style-type: none"> ● think about user when choosing textiles ● choose textiles considering appearance and functionality ● 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 		<ul style="list-style-type: none"> ● think about user's wants/needs and aesthetics when choosing textiles ● make product attractive and strong ● make a prototype ● use a range of joining techniques ● think about how product might be sold ● think carefully about what would improve product ● understand that a single 3D textiles project can be made from a combination of fabric shapes.

Curriculum Objectives to be completed by end of year DT

	two identical fabric shapes				
DT- Design					
<p><i>-Design purposeful, functional, appealing products for themselves and other users based on design criteria</i> <i>-Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</i></p>			<p><i>-Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</i> <i>-Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</i></p>		
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> ● have own ideas ● explain what they want to do ● explain what their product is for, and how it will work ● use pictures and words to plan, begin to use models ● design a product for themselves following design criteria ● research similar existing products 	<ul style="list-style-type: none"> ● have own ideas and plan what to do next ● explain what they want to do and describe how they 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, 	<ul style="list-style-type: none"> ● begin to research others' needs ● show design meets a range of requirements ● describe purpose of product ● follow a given design criteria ● have at least one idea about how to create product ● create a plan which shows order, 	<ul style="list-style-type: none"> ● use research for design ideas ● show design meets a range of requirements and is fit for purpose ● 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 	<ul style="list-style-type: none"> ● 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 	<ul style="list-style-type: none"> ● draw on market research to inform design ● use research of user's individual needs, wants, requirements for design ● identify features of design that will appeal to the intended user ● create own design criteria and specification

Curriculum Objectives to be completed by end of year DT

	<p>diagrams, begin to use ICT</p> <ul style="list-style-type: none"> 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 	<p>equipment and tools</p> <ul style="list-style-type: none"> describe design using an accurately labelled sketch and words make design decisions explain how product will work make a prototype begin to use computers to show design 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> have a range of ideas produce a logical, realistic plan and explain it to others. use cross-sectional planning and annotated sketches make design decisions considering time and resources. clearly explain how parts of product will work. model and refine design ideas by making prototypes and using pattern pieces. use computer-aided designs 	<ul style="list-style-type: none"> come up with innovative design ideas follow and refine a logical plan. use annotated sketches, cross-sectional planning and exploded diagrams make design decisions, considering, resources and cost clearly explain how parts of design will work, and how they are fit for purpose independently model and refine design ideas by making prototypes and using pattern pieces use computer-aided designs
DT Make					
<p><i>-Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i></p> <p><i>-Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</i></p>		<p><i>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</i></p> <p><i>Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</i></p>			

Curriculum Objectives to be completed by end of year DT

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> ● explain what I'm making and why ● consider what I need to do next ● select tools/equipment to cut, shape, join, finish and explain choices ● measure, mark out, cut and shape, with support ● choose suitable materials and explain choices ● try to use finishing techniques to make product look good ● work in a safe and hygienic manner 	<ul style="list-style-type: none"> ● explain what I am making and why it fits the purpose ● make suggestions as to what I need to do next. ● join materials/components together in different ways ● measure, mark out, cut and shape materials and components, with support. ● describe which tools I'm using and why ● choose suitable materials and explain choices depending on characteristics. ● use finishing techniques to make product look good 	<ul style="list-style-type: none"> ● select suitable tools/equipment, explain choices; begin to use them accurately ● select appropriate materials, fit for purpose. ● work through plan in order ● consider how good product will be ● begin to measure, mark out, cut and shape materials/components with some accuracy ● begin to assemble, join and combine materials and components with some accuracy ● begin to apply a range of finishing techniques with some accuracy 	<ul style="list-style-type: none"> ● select suitable tools and equipment, explain choices in relation to required techniques and use accurately ● 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 	<ul style="list-style-type: none"> ● use selected tools/equipment with good level of precision ● produce suitable lists of tools, equipment/materials needed ● select appropriate materials, fit for purpose; explain choices, considering functionality ● create and follow detailed step-by-step plan ● explain how product will appeal to an audience ● mainly accurately measure, mark out, cut and shape materials/components ● mainly accurately assemble, join and combine materials/components ● mainly accurately apply a range of finishing techniques 	<ul style="list-style-type: none"> ● use selected tools and equipment precisely ● produce suitable lists of tools, equipment, materials needed, considering constraints ● select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics ● create, follow, and adapt detailed step-by-step plans ● explain how product will appeal to audience; make changes to improve quality ● accurately measure, mark out, cut and shape materials/components ● accurately assemble, join and combine materials/components ● accurately apply a range of finishing techniques

Curriculum Objectives to be completed by end of year DT

	<ul style="list-style-type: none"> work safely and hygienically 			<ul style="list-style-type: none"> use techniques that involve a small number of steps begin to be resourceful with practical problems 	<ul style="list-style-type: none"> use techniques that involve a number of steps be resourceful with practical problems
DT Evaluate					
<p><i>-Explore and evaluate a range of existing products</i></p> <p><i>-Evaluate their ideas and products against design criteria</i></p>		<p><i>-Investigate and analyse a range of existing products.</i></p> <p><i>-Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</i></p> <p><i>-Understand how key events and individuals in design and technology have helped shape the world</i></p>			
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> talk about their work, linking it to what they were asked to do talk about existing products considering: use, materials, how they work, audience, where they might be used talk about existing products, and say 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> look at design criteria while designing and making use design criteria to evaluate finished product say what I would change to make design better begin to evaluate existing products, considering: how well they have been made, 	<ul style="list-style-type: none"> refer to design criteria while designing and making use criteria to evaluate product begin to explain how I could improve original design evaluate existing products, considering: how well they've been made, materials, whether they work, 	<ul style="list-style-type: none"> evaluate quality of design while designing and making evaluate ideas and finished product against specification, considering purpose and appearance. test and evaluate final product evaluate and discuss existing products, considering: how well they've been made, materials, whether 	<ul style="list-style-type: none"> evaluate quality of design while designing and making; is it fit for purpose? keep checking design is best it can be. evaluate ideas and finished product against specification, stating if it's fit for purpose test and evaluate final product; explain what would improve it and the effect different resources may have had

Curriculum Objectives to be completed by end of year DT

<p>what is and isn't good</p> <ul style="list-style-type: none"> ● talk about things that other people have made ● begin to talk about what could make product better 	<ul style="list-style-type: none"> ● evaluate how good existing products are ● talk about what I would do differently if I were to do it again and why 	<p>materials, whether they work, how they have been made, fit for purpose</p> <ul style="list-style-type: none"> ● begin to understand by whom, when and where products were designed ● learn about some inventors/designers/ engineers/chefs/manufacturers of ground-breaking products 	<p>how they have been made, fit for purpose</p> <ul style="list-style-type: none"> ● 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 	<p>they work, how they have been made, fit for purpose</p> <ul style="list-style-type: none"> ● begin to evaluate how much products cost to make and how innovative they are ● research how sustainable materials are ● talk about some key inventors/designers/engineers/chefs/manufacturers of ground-breaking products 	<ul style="list-style-type: none"> ● 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 ● evaluate how much products cost to make and how innovative they are ● research and discuss how sustainable materials are ● consider the impact of products beyond their intended purpose ● discuss some key inventors/designers/engineers/chefs/manufacturers of ground-breaking products
---	--	---	--	--	--

Curriculum Objectives to be completed by end of year DT