



Design and Technology Progression of Skills

	EYFS	Year One	Year Two	End of KS expectations	Year Three	Year Four	Year Five	Year Six	End of KS expectations
Make	<p>To select appropriate resources</p> <p>To use gestures, talking and arrangements of materials and components to show a design</p> <p>To use contexts set by the teacher and myself</p> <p>To use language of designing and making (join, build, shape, longer, shorter, heavier etc.)</p>	<p>To have own ideas</p> <p>To explain what I want to do</p> <p>To explain what my product is for, and how it will work</p> <p>To use pictures and words to plan, begin to use models</p> <p>To design a product for myself following design criteria</p> <p>To research similar existing products</p>	<p>To have own ideas and plan what to do next</p> <p>To explain what I want to do and describe how I may do it</p> <p>To explain the purpose of a product, how it will work and how it will be suitable for the user</p> <p>To describe the design using pictures, words, models, diagrams, begin to use ICT</p> <p>To design products for myself and others following design criteria</p> <p>To choose the best tools and materials, and explain my choices</p> <p>To use knowledge of existing products to produce ideas</p>	<p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p>	<p>To begin to research others' needs</p> <p>To show design meets a range of requirements</p> <p>To describe the purpose of a product</p> <p>To follow given design criteria</p> <p>To have at least one idea about how to create product</p> <p>To create a plan which shows order, equipment and tools</p> <p>To describe a design using an accurately labelled sketch and words</p> <p>To make design decisions</p> <p>To explain how product will work</p> <p>To make a prototype</p> <p>To begin to use computers to show design</p>	<p>To use research for design ideas</p> <p>To show how the design meets a range of requirements and is fit for purpose</p> <p>To begin to create own design criteria</p> <p>To have at least one idea about how to create product and suggest improvements for design.</p> <p>To produce a plan and explain it to others</p> <p>To say how realistic plan is.</p> <p>To include an annotated sketch</p> <p>To make and explain design decisions considering availability of resources</p> <p>To explain how product will work</p> <p>To make a prototype</p> <p>To begin to use computers to show design.</p>	<p>To use internet and questionnaires for research and design ideas</p> <p>To take a user's view into account when designing</p> <p>To begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose</p> <p>To create own design criteria</p> <p>To have a range of ideas</p> <p>To produce a logical, realistic plan and explain it to others.</p> <p>To use cross-sectional planning and annotated sketches</p> <p>To make design decisions considering time and resources.</p> <p>To clearly explain how parts of product will work.</p> <p>To model and refine design ideas by making prototypes and using pattern pieces.</p> <p>To use computer-aided designs</p>	<p>To draw on market research to inform design</p> <p>To use research of user's individual needs, wants, requirements for design</p> <p>To identify features of design that will appeal to the intended user</p> <p>To create own design criteria and specification</p> <p>To come up with innovative design ideas</p> <p>To follow and refine a logical plan.</p> <p>To use annotated sketches, cross-sectional planning and exploded diagrams</p> <p>To make design decisions, considering resources and cost</p> <p>To clearly explain how parts of design will work, and how they are fit for purpose</p> <p>To independently model and refine design ideas by making prototypes and using pattern pieces</p> <p>To use computer-aided designs</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></p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design</p>
Design	<p>To construct with a purpose, using a variety of resources</p> <p>To use simple tools and techniques</p> <p>To build/ construct with a wide range of objects</p> <p>To select tools & techniques to shape, assemble and join</p> <p>To replicate structures with materials / components</p> <p>To discuss how to make an activity safe and hygienic</p> <p>To record experiences by drawing, writing, voice recording</p> <p>To understand different media can be combined for a purpose</p>	<p>To explain what I'm making and why</p> <p>To consider what I need to do next</p> <p>To select tools/equipment to cut, shape, join, finish and explain choices</p> <p>To measure, mark out, cut and shape, with support</p> <p>To choose suitable materials and explain choices</p> <p>To try to use finishing techniques to make product look good</p> <p>To work in a safe and hygienic manner</p>	<p>To explain what I am making and why it fits the purpose</p> <p>To make suggestions as to what I need to do next.</p> <p>To join materials/components together in different ways</p> <p>To measure, mark out, cut and shape materials and components, with support. To describe which tools I'm using and why</p> <p>To choose suitable materials and explain choices depending on characteristics.</p> <p>To use finishing techniques to make the product look good</p> <p>To work safely and hygienically</p>	<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>	<p>To select suitable tools/equipment, explain choices; begin to use them accurately</p> <p>To select appropriate materials, fit for purpose.</p> <p>To work through plan in order</p> <p>To consider how good product will be</p> <p>To begin to measure, mark out, cut and shape materials/components with some accuracy</p> <p>To begin to assemble, join and combine materials and components with some accuracy</p> <p>To begin to apply a range of finishing techniques with some accuracy</p>	<p>To select suitable tools and equipment, explain choices in relation to required techniques and use accurately</p> <p>To select appropriate materials, fit for purpose; explain choices</p> <p>To work through plan in order</p> <p>To realise if product is going to be good quality</p> <p>To measure, mark out, cut and shape materials/components with some accuracy</p> <p>To assemble, join and combine materials and components with some accuracy</p> <p>To apply a range of finishing techniques with some accuracy</p>	<p>To use selected tools/equipment with good level of precision</p> <p>produce suitable lists of tools, equipment/materials needed</p> <p>To select appropriate materials, fit for purpose; explain choices, considering functionality</p> <p>To create and follow detailed step by-step plan</p> <p>To explain how product will appeal to an audience</p> <p>To mainly accurately measure, mark out, cut and shape materials/components</p> <p>To mainly accurately assemble, join and combine materials/components</p> <p>To mainly accurately apply a range of finishing techniques</p> <p>To use techniques that involve a small number of steps</p> <p>To begin to be resourceful with practical problems</p>	<p>To use selected tools and equipment precisely</p> <p>To produce suitable lists of tools, equipment, materials needed, considering constraints</p> <p>To select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics</p> <p>To create, follow, and adapt detailed step-by-step plans</p> <p>To explain how product will appeal to audience; make changes to improve quality</p> <p>To accurately measure, mark out, cut and shape materials/components * accurately assemble, join and combine materials/components</p> <p>To accurately apply a range of finishing techniques</p> <p>To use techniques that involve a number of steps</p> <p>To be resourceful with practical problems</p>	<p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>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</p>



Design and Technology Progression of Skills

Evaluate	<p>To adapt work if necessary</p> <p>To dismantle, examine, talk about existing objects/structures</p> <p>To consider and manage some risks</p> <p>To practise some appropriate safety measures independently</p> <p>To talk about how things work</p> <p>To look at similarities and differences between existing objects / materials / tools</p> <p>To show an interest in technological toys</p> <p>To describe textures</p>	<p>To talk about my work, linking it to what I was asked to do</p> <p>To talk about existing products considering: use, materials, how they work, audience, where they might be used</p> <p>To talk about existing products, and say what is and isn't good</p> <p>To talk about things that other people have made</p> <p>To begin to talk about what could make product better</p>	<p>To describe what went well, thinking about design criteria</p> <p>To talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion</p> <p>To evaluate how good existing products are</p> <p>To talk about what I would do differently if I were to do it again and why</p>	<p>Explore and evaluate a range of existing products</p> <p>Evaluate their ideas and products against design criteria</p>	<p>To look at design criteria while designing and making</p> <p>To use design criteria to evaluate finished product</p> <p>To say what I would change to make design better</p> <p>To begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose</p> <p>To begin to understand by whom, when and where products were designed</p> <p>To learn about some inventors/designers/ engineers/chefs/ manufacturers of ground breaking products</p>	<p>To refer to design criteria while designing and making</p> <p>To use criteria to evaluate product</p> <p>To begin to explain how I could improve original design</p> <p>To evaluate existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose</p> <p>To discuss by whom, when and where products were designed</p> <p>To research whether products can be recycled or reused</p> <p>To know about some inventors/designers/ engineers/chefs/manufacturers of ground-breaking products</p>	<p>To evaluate quality of design while designing and making</p> <p>To evaluate ideas and finished product against specification, considering purpose and appearance.</p> <p>To test and evaluate final product</p> <p>To evaluate and discuss existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose</p> <p>To begin to evaluate how much products cost to make and how innovative they are</p> <p>To research how sustainable materials are</p> <p>To talk about some key inventors/designers/ engineers/ chefs/manufacturers of ground breaking products</p>	<p>To evaluate quality of design while designing and making; is it fit for purpose?</p> <p>To keep checking design is best it can be.</p> <p>To evaluate ideas and finished product against specification, stating if it's fit for purpose</p> <p>To test and evaluate final product; To explain what would improve it and the effect different resources may have had</p> <p>To 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>To evaluate how much products cost to make and how innovative they are</p> <p>To research and discuss how sustainable materials are</p> <p>To consider the impact of products beyond their intended purpose</p> <p>To discuss some key inventors/designers/ engineers/ chefs/manufacturers of ground breaking products</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>
		Sliders and Levers			Levers and linkages			Gears and Pulleys	
Mechanisms		<p>To use levers or slides</p> <p>To understand how to use wheels and axles</p>		<p>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p>	<p>To select appropriate tools / techniques</p> <p>To alter product after checking, to make it better</p> <p>To begin to try new/different ideas</p> <p>To use simple lever and linkages to create movement</p>			<p>To refine the product after testing</p> <p>To be confident about trying new/ different ideas</p> <p>To use cams, pulleys or gears to create movement</p>	<p><i>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</i></p>
Vocabulary		<p>slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards, design, make, evaluate, user, purpose, ideas, design criteria, product, function</p> <p>vehicle, wheel, axle, axle holder, chassis, body, cab, assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism, names of tools, equipment and materials used, design, make, evaluate, purpose, user, criteria, functional</p>			<p>mechanism, lever, linkage, pivot, slot, bridge, guide, system, input, process, output, linear, rotary, oscillating, reciprocating, user, purpose, function, prototype, design criteria, innovative, appealing, design brief</p>			<p>pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor. circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output, design decisions, functionality, innovation, authentic, user, purpose, design specification, design brief</p>	



Design and Technology Progression of Skills

			Freestanding Structures			Shell Structures Including CAD	Frame Structures		
Structures			<p>To measure materials</p> <p>To describe some different characteristics of materials</p> <p>To join materials in different ways</p> <p>To use joining, rolling or folding to make it stronger</p> <p>To use own ideas to try to make product stronger</p>	<p>Build structures, exploring how they can be made stronger, stiffer and more stable</p>		<p>To measure carefully to avoid mistakes</p> <p>To attempt to make product strong</p> <p>To continue working on product even if original didn't work</p> <p>To make a strong, stiff structure</p>	<p>To select materials carefully, considering intended use of product and appearance</p> <p>To explain how product meets design criteria</p> <p>To measure accurately enough to ensure precision</p> <p>To ensure product is strong and fit for purpose</p> <p>To begin to reinforce and strengthen a 3D frame</p>		<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p>
Vocabulary			<p>cut, fold, join, fix, structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic, circle, triangle, square, rectangle, cuboid, cube, cylinder, design, make, evaluate, user, purpose, ideas, design criteria, product, function</p>			<p>shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision, evaluating, design brief design criteria, innovative, prototype</p>	<p>frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent, design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional</p>		
			<p>Joining Fabrics</p>		<p>2D to 3D shape</p>			<p>Combining different fabric shapes</p>	
Textiles			<p>To measure textiles</p> <p>To join textiles together to make a product, and explain how I did it</p> <p>To carefully cut textiles to produce accurate pieces</p> <p>To explain choices of textile</p> <p>To understand that a 3D textile structure can be made from two identical fabric shapes.</p>	<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Select from and use a wide range of materials and components, including textiles</p>	<p>To join different textiles in different ways</p> <p>To choose textiles considering appearance and functionality</p> <p>To begin to understand that a simple fabric shape can be used to make a 3D textiles project</p>			<p>To think about user's wants/needs and aesthetics when choosing textiles</p> <p>To make product attractive and strong</p> <p>To make a prototype</p> <p>To use a range of joining techniques</p> <p>To think about how product might be sold</p> <p>To think carefully about what would improve product</p> <p>To understand that a single 3D textiles project can be made from a combination of fabric shapes.</p>	<p>Generate, develop, model and communicate their ideas pattern pieces</p> <p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>Select from and use a wider range of materials and components, including textiles according to their functional properties and aesthetic qualities</p>
Vocabulary			<p>Names of existing products, joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish, features, suitable, quality mock-up, design brief, design criteria, make, evaluate, user, purpose, function</p>		<p>fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance, user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, aesthetics, function, pattern pieces</p>			<p>seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings, iron transfer paper, design criteria, annotate, design decisions, functionality, innovation, authentic, user, purpose, evaluate, mock-up, prototype</p>	



Design and Technology Progression of Skills

						Simple circuits and switches	More complex circuits and switches		
Electrical systems						To use number of components in circuit To program a computer to control product	To incorporate switch into product To confidently use number of components in circuit To be able to program a computer to monitor changes in environment and control product		Understand and use electrical systems in their products [for example, series circuits
Vocabulary						series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device, user, purpose, function, prototype, design criteria, innovative, appealing, design brief	series circuit, parallel circuit, names of switches and components, input device, output device, system, monitor, control, program, flowchart, function, innovative, design specification, design brief, user, purpose		
Food and Nutrition		Preparing fruit and vegetables	Regional/UK food	Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from.	Healthy and varied Diet	Healthy and varied Diet: Mediterranean dish	Celebrating Culture and seasonality: Compare healthy food	Celebrating Culture and seasonality: Cooking on a budget (food from distant places)	
	To begin to understand some food preparation tools, techniques and processes To practise stirring, mixing, pouring, blending To discuss how to make an activity safe and hygienic To discuss use of senses To understand need for variety in food To begin to understand that eating well contributes to good health	To describe textures To wash hands & clean surfaces To think of interesting ways to decorate food To say where some foods come from, (i.e. plant or animal) To describe differences between some food groups (i.e. sweet, vegetable etc.) To discuss how fruit and vegetables are healthy To cut, peel and grate safely, with support	To explain hygiene and keep a hygienic kitchen To describe properties of ingredients and importance of varied diet To say where food comes from (animal, underground etc.) To describe how food is farmed, home-grown, caught To draw eat well plate; explain there are groups of food To describe "five a day" *cut, peel and grate with increasing confidence	Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from.	To carefully select ingredients To use equipment safely To make product look attractive To think about how to grow plants to use in cooking To begin to understand food comes from UK and wider world To describe how healthy diet= variety/balance of food/drinks To explain how food and drink are needed for active/healthy bodies. To prepare and cook some dishes safely and hygienically To grow in confidence using some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking	To explain how to be safe/hygienic To think about presenting product in interesting/ attractive ways To understand ingredients can be fresh, pre-cooked or processed To begin to understand about food being grown, reared or caught in the UK or wider world To describe eat well plate and how a healthy diet=variety / balance of food and drinks To explain importance of food and drink for active, healthy bodies To prepare and cook some dishes safely and hygienically To use some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking	To explain how to be safe / hygienic and follow own guidelines To present product well - interesting, attractive, fit for purpose To begin to understand seasonality of foods To understand food can be grown, reared or caught in the UK and the wider world To describe how recipes can be adapted to change appearance, taste, texture, aroma To explain how there are different substances in food / drink needed for health To prepare and cook some savoury dishes safely and hygienically including, where appropriate, use of heat source To use range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.	To understand a recipe can be adapted by adding / substituting ingredients To explain seasonality of foods To learn about food processing methods To name some types of food that are grown, reared or caught in the UK or wider world To adapt recipes to change appearance, taste, texture or aroma. To describe some of the different substances in food and drink, and how they can affect health To prepare and cook a variety of savoury dishes safely and hygienically including, where appropriate, the use of heat source. To use a range of techniques confidently such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.	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.

