

DT Progression of Skills

	EYFS	EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Structures	Junk Modelling	Boats	Constructing a windmill		Constructing a castle			
Skills		<p>Design</p> <ul style="list-style-type: none"> • Designing a junk model boat. • Using knowledge from exploration to inform design. 	<p>Design</p> <ul style="list-style-type: none"> • Learning the importance of a clear design criteria. • Including individual preferences and requirements in a design. 		<p>Design</p> <p>Designing a castle with key features to appeal to a specific person/purpose.</p> <ul style="list-style-type: none"> • Drawing and labelling a castle design using 2D shapes, labelling: -the 3D shapes that will create the features - materials needed and colours. • Designing and/or decorating a castle tower on CAD software. 			
		<p>Make</p> <ul style="list-style-type: none"> • Making a boat that floats and is waterproof, considering material choices. 	<p>Make</p> <ul style="list-style-type: none"> • Making stable structures from card, tape and glue . • Learning how to turn 2D nets into 3D structures. • Following instructions to cut and assemble the supporting structure of a 		<p>Make</p> <p>Constructing a range of 3D geometric shapes using nets.</p> <ul style="list-style-type: none"> • Creating special features for individual designs. • Making facades from a range of recycled materials. 			



Clore Shalom School

			<p>windmill.</p> <ul style="list-style-type: none"> • Making functioning turbines and axles which are assembled into a main supporting structure. 					
		<p>Evaluate</p> <ul style="list-style-type: none"> • Making predictions about, and evaluating different materials to see if they are waterproof. • Making predictions about, and evaluating existing boats to see which floats best. • Testing their design and reflecting on what could have been done differently. • Investigating the how the shapes and structure of a boat affect the way it moves. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't. • Suggest points for improvements. 		<p>Evaluate</p> <ul style="list-style-type: none"> • Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison to the original design. • Suggesting points for modification of the individual designs. 			



<p>Knowledge</p>		<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that 'waterproof' materials are those which do not absorb water. 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To understand that the shape of materials can be changed to improve the strength and stiffness of structures. • To understand that cylinders are a strong type of structure (e.g. the main shape used for windmills and lighthouses). • To understand that axles are used in structures and mechanisms to make parts turn in a circle. • To begin to understand that different structures are used for different purposes. • To know that a structure is something that has 		<p>Technical knowledge</p> <ul style="list-style-type: none"> • To understand that wide and flat based objects are more stable. • To understand the importance of strength and stiffness in structures. 			
-------------------------	--	--	---	--	--	--	--	--



			been made and put together.					
Additional		<ul style="list-style-type: none"> • To know that some objects float and others sink. • To know the different parts of a boat. 	<ul style="list-style-type: none"> • To know that a client is the person I am designing for. • To know that design criteria is a list of points to ensure the product meets the clients needs and wants. • To know that a windmill harnesses the power of wind for a purpose like grinding grain, pumping water or generating electricity. • To know that windmill turbines use wind to turn and make the machines inside work. • To know that a windmill is a structure with sails that are moved by the wind. • To know the three main parts of a windmill are the turbine, axle and structure. 		<ul style="list-style-type: none"> • To know the following features of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge and gatehouse - and their purpose. • To know that a façade is the front of a structure. • To understand that a castle needed to be strong and stable to withstand enemy attack. • To know that a paper net is a flat 2D shape that can become a 3D shape once assembled. • To know that a design specification is a list of success criteria for a product. 			

	Year 1	Year 1	Year 2	Year 2	Year 3	Year 4	Year 5	Year 6
Mechanisms / mechanical systems			Fairground wheel				Pop up book	
Skills			Design <ul style="list-style-type: none"> • Selecting a suitable linkage system to produce the desired motion. • Designing a wheel. 				Design <ul style="list-style-type: none"> • Designing a pop-up book which uses a mixture of structures and mechanisms. • Naming each mechanism, input and output accurately. • Storyboarding ideas for a book. 	
			Make <ul style="list-style-type: none"> • Selecting materials according to their characteristics. • Following a design brief. 				Make <ul style="list-style-type: none"> • Following a design brief to make a pop up book, neatly and with focus on accuracy. • Making mechanisms and/or structures using sliders, pivots and folds to 	



							produce movement. <ul style="list-style-type: none"> • Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result. 	
			Evaluate <ul style="list-style-type: none"> • Evaluating different designs. • Testing and adapting a design. 				Evaluate <ul style="list-style-type: none"> • Evaluating the work of others and receiving feedback on own work. • Suggesting points for improvement. 	
Knowledge			Technical knowledge <ul style="list-style-type: none"> • To know that different materials have different properties and are therefore suitable for different uses. 				Technical knowledge <ul style="list-style-type: none"> • To know that mechanisms control movement. • To understand that mechanisms can be used to change one kind of motion into another. • To understand how to use sliders, pivots 	



							and folds to create paper-based mechanisms.	
Additional			<ul style="list-style-type: none"> • To know the features of a ferris wheel include the wheel, frame, pods, a base an axle and an axle holder. • To know that it is important to test my design as I go along so that I can solve any problems that may occur. 				<ul style="list-style-type: none"> • To know that a design brief is a description of what I am going to design and make. • To know that designers often want to hide mechanisms to make a product more aesthetically pleasing. 	

	Year 3	Year 4	Year 5	Year 6
Electrical systems (KS2 only)		Torches		
Skills		Design <ul style="list-style-type: none"> • Designing a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas. 		
		Make <ul style="list-style-type: none"> • Making a torch with a working electrical circuit and switch. 		

		<ul style="list-style-type: none"> Using appropriate equipment to cut and attach materials. <ul style="list-style-type: none"> Assembling a torch according to the design and success criteria. 		
		<p>Evaluate</p> <ul style="list-style-type: none"> Evaluating electrical products. Testing and evaluating the success of a final product. 		
Knowledge		<p>Technical knowledge</p> <ul style="list-style-type: none"> To understand that electrical conductors are materials which electricity can pass through. To understand that electrical insulators are materials which electricity cannot pass through. To know that a battery contains stored electricity that can be used to power products. To know that an electrical circuit must be complete for electricity to flow. To know that a switch can be used to complete and break an electrical circuit. 	<p>Technical knowledge</p> <ul style="list-style-type: none"> To know that series circuits only have one direction for the electricity to flow. To know when there is a break in a series circuit, all components turn off. To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin. To know a motorised product is one which uses a motor to function. 	
Additional		<ul style="list-style-type: none"> To know the features of a torch: case, contacts, batteries, switch, reflector, lamp, lens. To know facts from the history and invention of the electric light bulb(s) - by Sir 	<ul style="list-style-type: none"> To know that product analysis is critiquing the strengths and weaknesses of a product. To know that 'configuration' means how the parts of a product are arranged. 	



		Joseph Swan and Thomas Edison.		
--	--	--------------------------------	--	--

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cooking and nutrition	Soup	Smoothies	Balanced diet	Eating seasonally	Adapting a recipe	Developing a recipe	Come dine with me
Skills	Design <ul style="list-style-type: none"> • Designing a soup recipe as a class. • Designing soup packaging. 	Design <ul style="list-style-type: none"> • Designing smoothie carton packaging by-hand. 	Design <ul style="list-style-type: none"> • Designing three wrap ideas based on a food combination which work well together. 	Design <ul style="list-style-type: none"> • Designing a recipe for a savoury tart. 	Design <ul style="list-style-type: none"> • Designing a biscuit within a given budget, drawing upon previous taste testing judgements. • Following 	Design <ul style="list-style-type: none"> • Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients. • Writing an amended method for a recipe to incorporate the relevant changes to ingredients. • Designing appealing packaging to reflect a recipe. • Researching existing recipes to inform ingredient choices. 	Design <ul style="list-style-type: none"> • Writing a recipe, explaining the key steps, method and ingredients. • Including facts and drawings from research undertaken.
	Make <ul style="list-style-type: none"> • Chopping plasticine safely. 	Make <ul style="list-style-type: none"> • Chopping fruit and vegetables safely to make a 	Make <ul style="list-style-type: none"> • Chopping foods safely to make a wrap. 	Make <ul style="list-style-type: none"> • Following the instructions within a recipe. 	Make <ul style="list-style-type: none"> • Following a baking recipe, including the 	Make <ul style="list-style-type: none"> • Cutting and preparing vegetables safely. 	Make <ul style="list-style-type: none"> • Following a recipe, including using the

	<ul style="list-style-type: none"> • Chopping vegetables with support 	<p>smoothie.</p> <ul style="list-style-type: none"> • Juicing fruits safely to make a smoothie. 	<ul style="list-style-type: none"> • Constructing a wrap that meets a design brief. • Grating foods to make a wrap. • Snipping smaller foods instead of cutting. 	<ul style="list-style-type: none"> • Tasting seasonal ingredients. • Selecting seasonal ingredients. • Peeling ingredients safely. • Cutting safely with a vegetable knife. 	<p>preparation of ingredients.</p> <ul style="list-style-type: none"> • Cooking safely, following basic hygiene rules. • Adapting a recipe to meet the requirements of a target audience. <p>• Establishing</p>	<ul style="list-style-type: none"> • Using equipment safely, including knives, hot pans and hobs. • Knowing how to avoid cross-contamination. • Following a step by step method carefully to make a recipe. 	<p>correct quantities of each ingredient.</p> <ul style="list-style-type: none"> • Adapting a recipe based on research. • Working to a given timescale. • Working safely and hygienically with independence.
	<p>Evaluate</p> <ul style="list-style-type: none"> • Tasting the soup and giving opinions. • Describing some of the following when tasting food: look, feel, smell and taste. • Choosing their favourite packaging design and explaining why. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Tasting and evaluating different food combinations. • Describing appearance, smell and taste. • Suggesting information to be included on packaging. • Comparing their own smoothie with someone else's. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Describing the taste, texture and smell of fruit and vegetables. • Taste testing food combinations and final products. • Describing the information that should be included on a label. • Evaluating food by giving a score. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Establishing and using design criteria to help test and review dishes. • Describing the benefits of seasonal fruits and vegetables and the impact on the environment. • Suggesting points for improvement when making a seasonal tart. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Evaluating a recipe, considering: taste, smell, texture and appearance. • Describing the impact of the budget on the selection of ingredients. • Evaluating and comparing a range of food products. • Suggesting modifications to a recipe (e.g. This biscuit has too many raisins, and it is falling apart, so next time I will use less raisins). 	<p>Evaluate</p> <ul style="list-style-type: none"> • Identifying the nutritional differences between different products and recipes. • Identifying and describing healthy benefits of food groups. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Evaluating a recipe, considering: taste, smell, texture and origin of the food group. • Taste testing and scoring final products. • Suggesting and writing up points of improvements when scoring others' dishes, and when evaluating their own throughout the planning, preparation and cooking process. • Evaluating health and safety in production to minimise cross contamination.

<p>Knowledge</p>	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that soup is ingredients (usually vegetables and liquid) blended together. • To know that vegetables are grown. • To recognise and name some common vegetables. • To know that different vegetables taste different. • To know that eating vegetables is good for us. • To discuss why different packages might be used for different foods. 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that a blender is a machine which mixes ingredients together into a smooth liquid. • To know that a fruit has seeds. • To know that fruits grow on trees or vines. • To know that vegetables can grow either above or below ground. • To know that vegetables is any edible part of a plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber). 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that ‘diet’ means the food and drink that a person or animal usually eats. • To understand what makes a balanced diet. • To know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. • To understand that I should eat a range of different foods from each food group, and roughly how much of each food group. • To know that ‘ingredients’ means the items in a mixture or recipe. 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that not all fruits and vegetables can be grown in the UK. • To know that climate affects food growth. • To know that vegetables and fruit grow in certain seasons. • To know that cooking instructions are known as a ‘recipe’. • To know that imported food is food which has been brought into the country. • To know that exported food is food which has been sent to another country.. • To know that eating seasonal foods can have a positive impact on the environment. • To know that similar coloured fruits and vegetables often have similar nutritional benefits. 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that the amount of an ingredient in a recipe is known as the ‘quantity.’ • To know that safety and hygiene are important when cooking. • To know the following cooking techniques: sieving, measuring, stirring, cutting out and shaping. • To understand the importance of budgeting while planning ingredients for biscuits. • To know that products often have a target audience. 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed. • To know that recipes can be adapted to suit nutritional needs and dietary requirements. • To know that I can use a nutritional calculator to see how healthy a food option is. • To understand that ‘cross-contamination’ means bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects. • To know that coloured chopping boards can prevent cross-contamination. 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that ‘flavour’ is how a food or drink tastes. • To know that many countries have ‘national dishes’ which are recipes associated with that country. • To know that ‘processed food’ means food that has been put through multiple changes in a factory. • To understand that it is important to wash fruit and vegetables before eating to remove any dirt and insecticides. • To understand what happens to a certain food before it appears on the supermarket shelf (Farm to Fork).
-------------------------	---	---	---	--	--	--	---

				• To know that the appearance of food is as important as taste.			
Additional						<ul style="list-style-type: none"> • To know that nutritional information is found on food packaging. • To know that food packaging serves many purposes. 	

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Textiles	Bookmarks	Puppets	Pouches	Cushions or Egyptian collars (cross stitch and applique)	Fastenings	Stuffed toys	Waistcoats
Skills	Design Discussing what a good design needs. <ul style="list-style-type: none"> • Designing a simple pattern with paper. • Designing a bookmark. • Choosing from available materials. 	Design <ul style="list-style-type: none"> • Using a template to create a design for a puppet. • 	Design Designing a pouch.	Design <ul style="list-style-type: none"> • Designing and making a template from an existing cushion and applying individual design criteria. 	Design Writing design criteria for a product, articulating decisions made. <ul style="list-style-type: none"> • Designing a personalised book sleeve. 	Design <ul style="list-style-type: none"> • Designing a stuffed toy, considering the main component shapes required and creating an appropriate template. • Considering the proportions of individual components. 	Design <ul style="list-style-type: none"> • Designing a waistcoat in accordance to a specification linked to set of design criteria. • Annotating designs, to explain their decisions.
	Make	Make	Make	Make	Make	Make	Make

Clore Shalom School

	<ul style="list-style-type: none"> • Developing fine motor/cutting skills with scissors. • Exploring fine motor/threading and weaving (under, over technique) with a variety of materials. • Using a prepared needle and wool to practise threading. 	<ul style="list-style-type: none"> • Cutting fabric neatly with scissors. • Using joining methods to decorate a puppet. • Sequencing steps for construction. 	<ul style="list-style-type: none"> • Selecting and cutting fabrics for sewing. • Decorating a pouch using fabric glue or running stitch. • Threading a needle. • Sewing running stitch, with evenly spaced, neat, even stitches to join fabric. • Neatly pinning and cutting fabric using a template. 	<ul style="list-style-type: none"> • Following design criteria to create a cushion or Egyptian collar. • Selecting and cutting fabrics with ease using fabric scissors. • Threading needles with greater independence. • Tying knots with greater independence. • Sewing cross stitch to join fabric. • Decorating fabric using appliqué. • Completing design ideas with stuffing and sewing the edges (Cushions) or embellishing the collars based on design ideas (Egyptian collars). 	<ul style="list-style-type: none"> • Making and testing a paper template with accuracy and in keeping with the design criteria. • Measuring, marking and cutting fabric using a paper template. • Selecting a stitch style to join fabric. • Working neatly by sewing small, straight stitches. • Incorporating a fastening to a design. 	<ul style="list-style-type: none"> • Creating a 3D stuffed toy from a 2D design. • Measuring, marking and cutting fabric accurately and independently . • Creating strong and secure blanket stitches when joining fabric. • Threading needles independently. • Using appliqué to attach pieces of fabric decoration. • Sewing blanket stitch to join fabric. • Applying blanket stitch so the spaces between the stitches are even and regular. 	<ul style="list-style-type: none"> • Using a template when cutting fabric to ensure they achieve the correct shape. • Using pins effectively to secure a template to fabric without creases or bulges. • Marking and cutting fabric accurately, in accordance with their design. • Sewing a strong running stitch, making small, neat stitches and following the edge. • Tying strong knots. • Decorating a waistcoat, attaching features (such as appliqué) using thread. • Finishing the waistcoat with a secure fastening (such as buttons). • Learning different
--	---	---	--	--	---	---	--

							decorative stitches. • Sewing accurately with evenly spaced, neat stitches.
	<p>Evaluate</p> <ul style="list-style-type: none"> • Reflecting on a finished product and comparing to their design. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Reflecting on a finished product, explaining likes and dislikes. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Troubleshooting scenarios posed by teacher. • Evaluating the quality of the stitching on others' work. • Discussing as a class, the success of their stitching against the success criteria. • Identifying aspects of their peers' work that they particularly like and why. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Evaluating an end product and thinking of other ways in which to create similar items. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Testing and evaluating an end product against the original design criteria. • Deciding how many of the criteria should be met for the product to be considered successful. • Suggesting modifications for improvement. • Articulating the advantages and disadvantages of different fastening types. 	<p>Evaluate</p> <ul style="list-style-type: none"> • Testing and evaluating an end product and giving point for further improvements. 	<p>Evaluate</p> <p>Reflecting on their work continually throughout the design, make and evaluate process.</p>
Knowledge	<p>Technical knowledge</p> <p>To know that a design is a way of planning our idea before we start.</p> <ul style="list-style-type: none"> • To know that threading is 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that 'joining technique' means connecting two pieces of material together. 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that sewing is a method of joining fabric. 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that applique is a way of mending or decorating a textile by applying 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that a fastening is something which holds two pieces of material together 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that blanket stitch is useful to reinforce the edges of a fabric 	<p>Technical knowledge</p> <ul style="list-style-type: none"> • To understand that it is important to design clothing with the client/target

Clore Shalom School

	<p>putting one material through an object.</p>	<ul style="list-style-type: none"> • To know that there are various temporary methods of joining fabric by using staples, glue or pins. • To understand that different techniques for joining materials can be used for different purposes. • To understand that a template (or fabric pattern) is used to cut out the same shape multiple times. • To know that drawing a design idea is useful to see how an idea will look. 	<ul style="list-style-type: none"> • To know that different stitches can be used when sewing. • To understand the importance of tying a knot after sewing the final stitch. • To know that a thimble can be used to protect my fingers when sewing. 	<p>smaller pieces of fabric to larger pieces.</p> <ul style="list-style-type: none"> • To know that when two edges of fabric have been joined together it is called a seam. • To know that it is important to leave space on the fabric for the seam. • To understand that some products are turned inside out after sewing so the stitching is hidden. 	<p>for example a zipper, toggle, button, press stud and velcro.</p> <ul style="list-style-type: none"> • To know that different fastening types are useful for different purposes. • To know that creating a mock up (prototype) of their design is useful for checking ideas and proportions. 	<p>material or join two pieces of fabric.</p> <ul style="list-style-type: none"> • To understand that it is easier to finish simpler designs to a high standard. • To know that soft toys are often made by creating appendages separately and then attaching them to the main body. • To know that small, neat stitches which are pulled taut are important to ensure that the soft toy is strong and holds the stuffing securely. 	<p>customer in mind.</p> <ul style="list-style-type: none"> • To know that using a template (or clothing pattern) helps to accurately mark out a design on fabric. • To understand the importance of consistently sized stitches.
--	--	--	--	--	--	--	---



	Year 3	Year 4	Year 5	Year 6
Digital world (KS2 only)	Wearable technology	Mindful moments timer	Monitoring devices	Navigating the world
Skills				<p>Design</p> <ul style="list-style-type: none"> • Writing a design brief from information submitted by a client. • Developing design criteria to fulfil the client's request. • Considering and suggesting additional functions for my navigation tool. • Developing a product idea through annotated sketches. • Placing and manoeuvring 3D objects, using CAD. • Changing the properties of, or combining one or more 3D objects, using CAD.
				<p>Make</p> <ul style="list-style-type: none"> • Considering materials and their functional properties, especially those that are sustainable and recyclable (for example, cork and bamboo). • Explaining material choices and why they were chosen as part of a product concept. • Programming an N,E, S, W cardinal compass.
				<p>Evaluate</p> <ul style="list-style-type: none"> • Explaining how my program fits the design



				<p>criteria and how it would be useful as part of a navigation tool.</p> <ul style="list-style-type: none"> • Developing an awareness of sustainable design. • Identifying key industries that utilise 3D CAD modelling and explaining why. • Describing how the product concept fits the client's request and how it will benefit the customers. • Explaining the key functions in my program, including any additions. • Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool. • Explaining the key functions and features of my navigation tool to the client as part of a product concept pitch. • Demonstrating a functional program as part of a product concept pitch.
Knowledge				<p>Technical knowledge</p> <ul style="list-style-type: none"> • To know that accelerometers can detect movement. • To understand that sensors can be useful in



				products as they mean the product can function without human input.
Additional				<ul style="list-style-type: none"> • To know that designers write design briefs and develop design criteria to enable them to fulfil a client’s request. • To know that ‘multifunctional’ means an object or product has more than one function. • To know that magnetometers are devices that measure the Earth’s magnetic field to determine which direction you are facing.