

DT Progression Overview



2021 DT Progression Overview						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Stone Age Iron Age, Bronze Age		United Kingdom – Great Fire of London		United Kingdom – History of Harrogate and Coppice Valley	
Inspiration	<p>Children know that all food comes from plants or animals.</p> <p>Children know that food has to be farmed, grown or caught.</p> <p>Children can describe the differences between some food groups (i.e., sweet, vegetable etc.)</p> <p>Children understand what food was available during the Stone Age and how it was acquired- foraging and hunting.</p>		<p>Children are aware of at least one British inventor, designer, engineer, chef or manufacturer.</p> <p>Children’s designs are inspired and influenced by a British inventor, designer, engineer, chef or manufacturer.</p>		<p>Children are beginning to design products that have a clear purpose and an intended user.</p> <p>Children are able to state what products they are designing and making.</p> <p>Children can generate ideas by drawing on their own experiences.</p> <p>Children use their knowledge of existing products to help come up with ideas.</p>	
Invention	<p>Children demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).</p> <p>Children can cut, peel or grate ingredients safely and hygienically.</p> <p>Children know to wash hands and clean surfaces before preparing any food items.</p>		<p>Children understand how a slider mechanism works and know where we may find them in the everyday.</p> <p>Children design a product that uses a slider mechanism.</p>		<p>Children can use templates to shape textiles.</p> <p>Children can say whether a material would be suitable for its purpose based on its durability and appearance.</p> <p>Children are able to select from a range of materials and components according to their characteristics.</p>	

DT Progression Overview



	<p>Children can cut card and paper safely using scissors.</p> <p>Children can create products that use wheels to move.</p> <p>Children can plan by suggesting what to do next.</p>		
Improvement	<p>Children can evaluate their designs and products by saying what they like or dislike.</p>	<p>Children can identify their likes and dislikes of current products and designs.</p>	<p>Children can colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).</p> <p>Make products, refining the design as work progresses.</p>
Year 2	Romans in Britain	Europe - Ancient Greeks	Europe – The French Revolution
Inspiration	<p>Children will demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</p>	<p>Children can name and sort foods into the five food groups.</p> <p>Children know that everyone should eat at least five portions of fruit and vegetables every day.</p>	<p>Children will use the work of a European inventor, designer, engineer, chef or manufacturer to generate ideas for designs.</p> <p>Children should be able to talk about what they like and dislike about a product and give reasons for their opinions.</p>
Invention	<p>Children can measure and mark out to the nearest centimetre.</p>	<p>Children can measure or weigh ingredients using measuring cups or electronic scales.</p>	<p>Children can join textiles using running stitch.</p>

DT Progression Overview



	<p>Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.</p> <p>Children are able to explain how their models will work.</p> <p>Children are able to describe what their products are for.</p> <p>Children are able to say how they will make their products suitable for their intended users.</p> <p>Children can select from a range of tools and equipment, explaining their choices.</p>		<p>Children can use simple design criteria to help develop their ideas.</p> <p>Children can use information and communication technology, where appropriate, to develop and communicate their ideas.</p>	
Improvement	<p>Children will design a product that makes use of a winding mechanism.</p> <p>Children model ideas by exploring materials, components and construction kits and by making templates and mock-ups.</p>	<p>Children can prepare simple dishes safely and hygienically, without using a heat source.</p>	<p>Children are beginning to evaluate their ideas and products against a design criteria.</p> <p>Children can develop and communicate ideas by talking and drawing.</p>	
Year 3	Anglo-Saxons	Vikings up to 1066	Americas – Maya Civilisation	Americas – Civil Rights Movement
Inspiration	<p>Children can follow a simple recipe.</p> <p>Children know that a healthy diet is made up from a variety and balance of different food and drink.</p>	<p>Children can cut materials accurately and safely by selecting appropriate tools.</p> <p>Children can measure and mark out materials to the nearest millimetre.</p>	<p>Children use the work of an American inventor, designer, engineer, chef or manufacturer to generate ideas for designs.</p>	

DT Progression Overview



	<p>Children know that food ingredients can be fresh, pre-cooked and processed.</p> <p>Children know that food is grown reared and caught in the UK, Europe and the wider world and can give examples of food and where it comes from.</p> <p>Children know that to be active and healthy, food and drink are needed to provide energy for the body.</p> <p>Children know that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.</p>	<p>Strengthen materials using suitable techniques.</p> <p>Design with purpose by identifying opportunities to design.</p>	
Invention	<p>Children can prepare ingredients hygienically using appropriate utensils.</p> <p>Children can measure ingredients to the nearest gram accurately.</p> <p>Children think about what could be added or taken away from a meal to make it healthier.</p>	<p>Children can join textiles with appropriate stitching.</p> <p>Children understand why the earthquakes in San Francisco were so destructive.</p> <p>Children design and build a model of a building that would withstand an earthquake.</p> <p>Children can use software to design and represent product designs.</p>	<p>Children make products by working efficiently and carefully selecting suitable materials.</p> <p>Children can create series and parallel circuits.</p> <p>Children can explain how particular parts of their products work.</p>

DT Progression Overview



Improvement	Children brainstorm different combinations of ingredients for a soup and decide which would be healthier and tastier.	Children recognise why structures are built the way they are to withstand natural disasters, water damage and fire. Children improve upon existing designs, giving reasons for choices.	Children can refine work and techniques as work progresses, continually evaluating the product design in their sketchbooks. Children will disassemble products to help them understand how they work. Children can troubleshoot why a circuit may not be working and perform relevant checks.
Year 4	The Tudors	Africa – Ancient Egyptians	Africa – Scramble for Africa
Inspiration	Children can assemble or cook healthy ingredients (controlling the temperature of the oven or hob, if cooking).	Children apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). Children select appropriate joining techniques/ resources.	Use the work of an African inventor, designer, engineer, chef or manufacturer to generate ideas for designs.
Invention	Children can use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Children can prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source Children can follow procedures for hygiene and safety.	Children create products using levers, pulleys and gears. Children develop their own design criteria and use these to inform their ideas. Children can order the main stages of the making of their product.	Children select the most appropriate techniques to decorate textiles. Children choose suitable techniques to construct products or to repair items. Children generate realistic ideas, focusing on the needs of the user. Children make design decisions that take account of the availability of resources.

DT Progression Overview



Improvement	Children can gather information about the needs and wants of particular individuals and groups and take this into account when developing the final product.	Children can use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears.)	Children understand the need for a seam allowance.
Year 5	Civil War	Asia – Genghis Khan	Asia - Birth of Modern Religions
Inspiration	Children know that seasons may affect the food available. Children know how food is processed into ingredients that can be eaten or used in cooking.	Children combine elements from the work of Asian inventors, designers, engineers, chefs or manufacturers to generate ideas for designs, giving reasons for choices.	Create objects that employ a seam allowance. Children use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).
Invention	Children know that recipes can be adapted to change the appearance, taste, texture and aroma. Children can create circuits using electronics kits that employ several components (such as LEDs, resistors, transistors and chips.) - Link to Physics	Children cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape). Children develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding). Children can use software to design.	Children can join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration).
Improvement	Children know that a recipe can be adapted by adding or substituting one or more ingredients.	Children can evaluate the design of products and suggest improvements to the user experience.	Children practice and evaluate their stitching methods before using to create the final product.

DT Progression Overview



		Children create innovative designs that improve upon existing products.	
Year 6	Victorian – Harrogate and medical advancement	Victorian – Suffrage and social reform	Victorian – Empire and Exploration
Inspiration		<p>Where relevant, children can survey their target audience and use this to generate ideas.</p> <p>Combine elements from the work of British inventors, designers, engineers, chefs or manufacturers to generate ideas for designs, giving reasons for choices.</p> <p>Children understand and apply the principles of a healthy and varied diet.</p> <p>Children understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>	<p>Children take apart toys with mechanisms to try and understand how they work and why they're successful.</p> <p>Children can indicate the design features of their products that will appeal to intended users.</p>
Invention		<p>Children show an understanding of the qualities of materials to choose appropriate tools to cut and shape.</p> <p>Children can carry out research, using surveys, interviews, questionnaires and web-based resources.</p> <p>Children can identify the needs, wants, preferences and values of particular individuals and groups and use this information to inform their designs.</p>	<p>Children can convert rotary motion to linear using cams.</p> <p>Children know mechanical systems such as cams or pulleys or gears create movement.</p> <p>Children generate innovative ideas, drawing on research.</p> <p>Children can make design decisions, taking account of constraints such as time, resources and cost.</p>

DT Progression Overview



		<p>Children use innovative combinations of electronics (or computing) and mechanics in product designs.</p> <p>Children use their knowledge of science and art when designing.</p> <p>Children know that a 3D textiles product can be made from a combination of fabric shapes.</p> <p>Children 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>Children 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> <p>Children can measure and cut materials to the nearest millimetre.</p> <p>Children can make stable and strong joins so the product can withstand regular use.</p> <p>Children can prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p>	<p>Children can formulate step-by-step plans as a guide to making their product.</p> <p>Children produce appropriate lists of tools, equipment and materials that they need.</p>
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DT Progression Overview



Improvement		<p>Children can suggest some alternative designs and compare the benefits and drawbacks to inform the design process and outcome.</p> <p>Children first make prototypes to inform their final product.</p>	<p>Children ensure products have a high-quality finish, using art skills where appropriate.</p> <p>Children model their ideas using prototypes and pattern pieces.</p> <p>Children make products through stages of prototypes, making continual refinements.</p>
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