

Design & Technology Curriculum Overview 2021 – 2022

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1		<p>DT: Mechanisms (Levers and linkages) PRODUCT: Christmas card Children to explore a range of Christmas cards and design a pop-up Christmas card. Children to decide which lever will give them the movement they want for their illustration. Children to design and plan using annotated sketches.</p>		<p>DT: Structures PRODUCT: Playground equipment Children to design, plan and make new playground equipment. Children to evaluate past and present products, investigating how they have been made. With teacher support, decide on suitable design criteria. Children to choose appropriate materials and techniques from the focused tasks.</p>		<p>DT: Food Technology PRODUCT: Fruit Salad Children to design a fruit salad for the bear in “Goldilocks and the One Bear” to take on his trip to the city. Consider what would work best for the planned context in terms of product and purpose, e.g. if for a picnic, it needs to be packable. Children to taste and simply describe the fruit’s taste.</p>
Year 2				<p>DT – Mechanisms (wheels and axles) PRODUCT: Space rover Children to discuss the context, product, purpose and user. Children to develop, plan and test products. Through the iterative process, encourage children to explore their ideas through talk, followed by action as they modify, adapt and attempt to complete their plans.</p>	<p>DT – Food Technology PRODUCT: A salad Children to design their salad against the Eat Well plate. Children should take account of the colours, textures and flavours of the ingredients they wish to combine and discuss quantities of the various ingredients using non-statutory measures.</p>	<p>DT – Textiles PRODUCT: A Puppet Children to join fabrics by using running stitch, glue, staples and over sewing. Children to decorate the fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons and attach them using the methods previously taught.</p>
Year 3				<p>DT- Mechanisms (levers and linkages) PRODUCT: A moving picture book Children to investigate examples of pop-up mechanisms which use systems of levers and linkages. Children to model their ideas for different mechanical systems and decide which one they will use. Children to include diagrams of levers and their movements.</p>	<p>DT – Structures PRODUCT: A planter/ raised bed Children to discuss what the structure needs to achieve. Children to work in pairs as designer and client, sharing ideas for their product and how they could achieve the purpose before agreeing on a design criteria. Children to use cross sectional diagrams to record their ideas as they develop before creating simple card prototypes. Children to choose appropriate tools and skills to create their structure.</p>	<p>DT – Food Technology PRODUCT: A simple meal to pack for a picnic. Children to investigate picnics and appropriate food items such as those that are transportable, easy to eat. Children to test products and record reflections on their taste, texture, smell and appearance. Children to draw or sketch products and annotate drawings, researching the needs of the user by questioning each other in role as the 'picnic eater' before selecting a range of tools and ingredients to create their dish.</p>

Year 4	<p>DT - Food Technology PRODUCT: A simple meal using limited ingredients and methods. Children to design a healthy dish that includes simple root vegetables, referring to the Eatwell plate, and plan the sequence of actions needed to make their dish. Record the plan by drawing and using annotated sketches. Test cooking small portions of the ingredients to trial proportions or any extras such as herbs. Children to develop sensory vocabulary and knowledge using smell, taste, texture and feel and analyse the taste, texture, smell and appearance of a range of foods.</p>		<p>DT - Textiles PRODUCT: A pair of Greek sandals Investigate existing products, disassembling to explore the pattern-making process and seam allowance. Consider the fabrics, fastenings, stitches, any stiffening or strengthening which has been used. Sketch findings with appropriate annotations before creating a design specification through sketches. Children to make mock ups of the product and evaluate. Children to create a pattern for the final design before creating it using various sewing and stiffening techniques. Decorate it using decorative techniques such as embroidery.</p>			<p>DT - Electrical systems PRODUCT: A torch Children to discuss the context, product, purpose, user develop design criteria with the teacher. Children to use discussion, drawings, mock-ups to explore their initial ideas before choosing one, selecting materials, tools and techniques. Children to be guided through the iterative process, exploring their ideas through talk followed by action as they modify, adapt and attempt to complete their plans.</p>
Year 5		<p>DT - Textiles PRODUCT: A belt with loops and pouches Investigate existing products, disassembling to explore the pattern-making process and joining methods. Consider the fabrics, fastenings, stitches and any strengthening which has been used. Sketch findings with appropriate annotations before presenting a design specification with sketches. Children to make mock ups of the product and evaluate. Children to create a pattern for the final design before creating it using various sewing and fastening techniques. Decorate it using decorative techniques such as embroidery and appliqué.</p>	<p>DT - Mechanisms (Gears, pulleys, cams) PRODUCT: A vehicle using gears and powered by an electrical motor Children to investigate existing products, considering whether they meet their product/purpose/user requirements. Children to create diagrams of how they work, conducting questionnaires to users before producing their final concept in a form which can be shared with their 'client', including use of technical vocabulary and diagrams.</p>		<p>DT- Food Technology PRODUCT: An attractive food item to be eaten at a celebration. Children to taste samples of various celebratory foods and record reflections on taste, texture, smell and appearance. Children design a dish based on the design criteria and identify the strengths and weaknesses of their design ideas in relation to purpose and user. Reason and decide which design idea to develop before planning the sequence of actions needed to make their dish. Children to test cooking small portions of the ingredients to trial proportions and identify any extras such as spices etc. that are required</p>	

Year 6			<p>DT - Structures PRODUCT: A framework to carry a diorama Children to investigate strengthening and stabilising of framework structures and decide on materials and joining methods after trying out a variety in models.</p> <p>DT - Mechanical & electrical systems PRODUCT: A mechanism and lighting Children to investigate mechanical systems and design a panoramic display which has at least one movement in it using CAMS or pulleys. Children to use a motor to turn the mechanism.</p>		<p>DT - Food Technology PRODUCT: A healthy and nutritious school meal. Children research the work of chefs such as Jamie Oliver and his influence on school meals and interview the school chef on how they ensure a nutritious meal. From initial evaluations, children to draw up design criteria for their meal - what is essential and what is desirable, using the Eatwell plate to ensure a balance of food groups. Children to trial each element of the meal - making sure that it tastes right, looks appetising and meets nutritional requirements. Children will test, make and evaluate their meal against their design criteria and with consumer groups.</p>	
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