



Design & Technology Subject Map

2021-2022

Key Stage 1	Key Stage 2
<p>Design</p> <ul style="list-style-type: none"> Design purposeful, functional and appealing products for themselves and others users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. <p>Make</p> <ul style="list-style-type: none"> Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing). Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. <p>Evaluate</p> <ul style="list-style-type: none"> Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. <p>Technical Knowledge</p> <ul style="list-style-type: none"> Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms (for example, levers, sliders, wheels and axles) in their products. <p>Cooking and nutrition</p> <ul style="list-style-type: none"> Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from. 	<p>Design</p> <ul style="list-style-type: none"> 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. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. <p>Make</p> <ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks (for example cutting, shaping, joining and finishing), accurately. Select from and use a wider range of materials, textiles and ingredients, according to their functional properties and aesthetic qualities. <p>Evaluate</p> <ul style="list-style-type: none"> Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world. <p>Technical Knowledge</p> <ul style="list-style-type: none"> Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in their products (for example gears, pulleys, cams, levers and linkages). Understand and use electrical systems in their products (for example series circuits incorporating switches, bulbs, buzzers and motors). Apply their understanding of computing to programme, monitor and control their products. <p>Cooking and nutrition</p> <ul style="list-style-type: none"> 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.

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Year	Autumn	Spring	Summer
R	Topics: Me and my Community Autumn <ul style="list-style-type: none"> Exploring tools, materials and techniques Construction materials Junk modelling emergency vehicles Threading 		
	Topics: Once Upon a Time Sparkle and Shine <ul style="list-style-type: none"> Fairy tale buildings Making houses for the three little pigs. Food technology (Making porridge, fruit kebabs, gingerbread biscuits.) Designing wrapping paper Wrapping presents Developing cutting skills. 		
1	Moon Zoom Design and make a model alien spaceship. Explore and evaluate a selection of space related toys - how they work/move/operate/what it can do - how it can be better?	Paws, Claws and whiskers Design and make an enclosure for a particular zoo animal (small groups: different zoo animal enclosures) bring them all together and discuss how to place all the enclosures in the zoo. Design a label for tiger food.	Superheroes Explore superfoods - describes food smells, tastes. Sample distinctive flavours. Follow simple superfood recipe. Discuss origins of ingredients.
	Splendid Skies Make a seasonal picture - using materials available for that season Design and make their own sandwich.	Dinosaur Planet Cut, collage, split pins to make dinosaur egg that opens. Explore an artist and make a class blanket inspired by an artist. Sewing skills to create a pattern.	Big Lights, Big Cities Use colour magic to draw a London vehicle - print on card. Use a sliding mechanism to make a moving picture and evaluate.
2	Wriggle and Crawl Paper plate ladybirds, painting, cutting spots with split pins so wings move. Symmetry - drawing the other half of a mini beast and	Towers, Tunnels and Turrets Castle making Design a castle individually selecting different materials to use Work within a group, talk and develop ideas into one design for each group	Scented Garden

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	<p>honeycomb symmetrical patterns.</p> <p>Cutting and sticking mini beasts on a grid and colouring to camouflage.</p>	<p>Select a range of materials and tools to make one castle per group. Look at how they can make stronger Include a drawbridge mechanism and evaluate.</p> <p>Prepare and make a fruit salad and discuss origins of the ingredients.</p>	
		<p>Street Detectives Beat, Band and Boogie Make instruments for sensory garden.</p> <p>Design own shake and rain makers. Decorate bottles and fill, evaluate</p> <p>Explore a range of different instruments and look at how they've been made, how they operate and the materials used for them.</p>	<p>Land Ahoy Pirate paper plate faces Choose a range of materials, use stronger glue, fabric, felt, wool and beads to thread for braids</p>
3	<p>Scrumdidliumptious Make a healthy meal Identify what different foods are used for in our bodies</p> <p>Understand and apply the principles of a healthy and varied diet.</p> <p>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>Flow Create 3D model of a water cycle</p>	<p>Tribal Tales Creating spears, making shelters (inspired by Stig of the dump)</p> <p>Clay pots inspired by the Beaker folk.</p>
	<p>Heroes & Villains Healthy Diet Nutrition</p> <p>Mighty Metal Create a large iron man from 3D boxes</p> <p>Wind chimes for sensory garden Look at examples of chimes Design, make, evaluate</p>	<p>Urban Pioneers Creating outdoor sensory garden using sustainable materials. Look at Barbara Hepworth, Jim Dine</p>	<p>Gods and Mortals Create a Greek meal</p> <p>Create puppets for myths - create own props for Icarus and Daedalus</p>

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4	I am warrior To make a shield and helmet - using a wide range of materials and tools.	Bottoms, Burps and Bile Prepare a menu of healthy in season snacks Look at and evaluate existing toothpaste packaging. Design own tube of paste and packaging.	Traders and Raiders Create their own Viking house to demonstrate what it looks like.
	Playlist Research musical instruments and explore how they are made. Make a musical instrument	Potions Design a potions bottle label - research existing potion bottles and record good ideas. Make potion bottles Design, make using clay, evaluate	Blue Abyss Find out about Corelius Drebbel (inventor of the submarine in 1600's) Create a model of how submarines work using bendy straws and weight.
5	Stargazers Design and make a planet. Creation Plan/design and make either model or picture choosing appropriate materials to create personal response to one day of creation.	Scream machine Use kinetics to build a working model of a rollercoaster. Evaluate models.	Off with her head Make detailed sketches of Tudor costume and jewellery and make own pieces.
	Pharaohs Draw and decorate Ancient Egyptian artefacts, design and make a canopic jar. Design and make clay cartouche. Make mosaic Egyptian collars using paper plates abd coloured paper.	Time Travellers Design, prepare and evaluate a food item to take to a different time period.	Beast creator Make a model of a flower manipulating wire and using different craft paper. Create a mini beast hotel.
6	Hola Mexico Following a recipe for 'Puncha de Frutas' Tasting Mexican Food	Frozen Kingdom ID Design and create own t-shirt using research and computer aided design	Blood Heart
	Fallen Fields Homework project - create a poppy - memorial/display Frozen Kingdom	Gallery Rebels	A child's War Food - A 'rationed' meal from WW2 Bridges - building bridges - proposed local study