



Harlington and Sundon Academy Trust

School: Harlington Lower School

Curriculum Progression for: Design Technology

Intent	<p>We want to achieve.</p> <p>Open minded, tolerant, respectful and aspirational world citizens who; appreciate difference and value diversity.</p> <p>We want our pupils to extend their knowledge and understanding of the world around them through the understanding and appreciating art work from a range of different times and cultures.</p> <p>We want pupils to develop their creativity and willingness to create and make art and design projects.</p>
EYFS	<p>Children should come to Year 1 with the following skills and knowledge.</p> <p>Physical Development (fine motor skills)</p> <ul style="list-style-type: none">● Use a range of small tools, including scissors, paintbrushes and cutlery. <p>Expressive Arts and Design (creating with materials)</p> <ul style="list-style-type: none">● Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. <p>Share their creations, explaining the process they have used.</p>

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	Autumn	Spring	Summer
Year 1	Fabric Bunting	Moving Pictures	Dips and Dippers
Vocabulary	Evaluate, product, bunting, existing, design, program, graphics, computer, template, felt, trace, accurately, skill, needle, thread, running stitch, seam, starting off, finishing off, materials, fabrics, join, select, properties, join, glue, staple, sew.	Moving, picture, book, story, traditional tale, lever, slider, pivot, wheel, push, pull, direction, up, down, left, right, evaluate, product, mechanism, slider, evaluate, assemble, fix, lever, assemble, split pin, pivot, traditional tale, moving, picture, mechanism, wheel, disc, assemble, reassemble, split pin, fixed, push, cut, draw, design criteria, annotated sketch, idea, discuss, choose, drawing, label, appealing, evaluate, make, improve.	Ingredients, dips, evaluate, senses, taste, texture, smell, appearance, protein, dairy, fruit, vegetables, carbohydrate, balanced, diet, varied, Dipper, explore, sensory, evaluating, crunchy, dry, hard, sweet, juicy, hygiene, blend, grate, crush, mix, peel, chop, slice, layered, marbled, The Bridge, The Claw, Context, ingredients, equipment, method, design, evaluate, design criteria, plan.
Skills	<p>I can explore and evaluate bunting.</p> <p>I can design my bunting flag.</p> <p>I can use a paper template to help cut a fabric shape.</p> <p>I can use a running stitch to join fabric.</p> <p>I can select fabrics that are suitable for decorating my bunting.</p> <p>I can join fabrics.</p> <p>Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping and finishing) in the context of cutting a template and using it to shape a piece of fabric.</p> <p>Select from and use a range of tools and equipment to perform practical tasks (for example joining) in the context of using running stitch to join fabric.</p> <p>Select from and use a wide range of materials and components, including textiles, according to their characteristics in the context of selecting materials to join to fabric bunting.</p> <p>Select from and use a wide range of tools and equipment to perform practical tasks (for example joining and finishing) in the context of joining fabrics using different techniques.</p> <p>Evaluate their ideas and products against a design criteria in the context of evaluating the bunting flag.</p>	<p>I can explore and evaluate an existing product in the context of exploring existing moving books.</p> <p>I can use a mechanism in my product to make a picture move.</p> <p>I can make a lever and use it in my product.</p> <p>I can make a wheel mechanism and use it in my product.</p> <p>I can design a working product thinking about who it is for and what it needs.</p> <p>I can make decisions about my product design and use an annotated sketch to show them.</p> <p>I can use mechanisms to make a product.</p> <p>I can evaluate my product against design criteria.</p>	<p>I can evaluate different dips.</p> <p>I can explore different dips and dippers and describe them.</p> <p>I can make dips and dippers.</p> <p>I can plan my own appealing dip and dipper and clearly show my ideas.</p> <p>I can follow my plan to make my own dip and dipper.</p> <p>I can evaluate my dip and dipper.</p> <p>To select from and use a range of tools and equipment to perform practical tasks (for example, cutting) in the context of making a Dip and Dipper.</p>
Knowledge			I can explain where some different foods come from.

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			I can explain why I need to eat a balance and variety of food groups to stay healthy.
Visit/Special Occasions			
Year 2	Fabric Faces	Packed Lunch Problems	Sensational Salads
Vocabulary	Explore, fabric, textile, lace, felt, corduroy, jean, satin, silk, cotton, velvet, velour, ribbon, wool, fur, evaluate, hessian, join, fabric, attach, template , cut, line, shape, oval, round, square, heart, tone, design, criteria, textiles, materials, tools, annotated drawing, tools, join, cut, evaluate.	Evaluate, product, existing, disassemble, materials, waterproof, strong, protect, reclaimed, select tools, equipment, safety, area, join, tape, glue, structure, hinges, evaluate, design criteria, specification, test, stronger, stable, stiffer, retest, improvements, appealing.	Fruit, vegetable, plant, root, cauliflower, cabbage, strawberries, beetroot, onions, apples, plums, broad beans, blackberries, rhubarb, marrow, gooseberries, celery, lettuce, carrots , tomatoes, radishes, runner beans, turnips, potatoes, evaluate, vegetable, root, salad, texture, smell, appearance, taste, hygiene, blend, grate, mix, peel, chop, slice, The Bridge, The Claw, Fork Safe, Protein, vitamins, minerals, oily, salmon, mackerel, trout, tuna, shellfish, hygiene, blend, grate, mix, zest, juice, chop, slice, peel, cut, fork safe, combine, fruit, recipe.
Skills	<p>I can explore fabrics.</p> <p>I can explore and evaluate how hair is created using different materials.</p> <p>I can select a material and shape it.</p> <p>I can join fabrics together and attach different materials.</p> <p>I can cut on a line and use a template to create my fabric face shape.</p> <p>I can create and follow a design criteria.</p> <p>I can think of ideas, discuss them and then create a design.</p> <p>I can carefully select fabrics and materials.</p> <p>I can follow my design carefully and use different tools to make my fabric face.</p>	<p>To evaluate a product's ability to do a job well in the context of a basket used to transport a pirate's lunch..</p> <p>To investigate and evaluate existing products.</p> <p>To explore different materials and decide which will be useful for making my product.</p> <p>To design a new product that meets the design criteria.</p> <p>To select and use tools and equipment to make a lunchbox.</p> <p>To test a product and then evaluate it.</p> <p>To improve my product by making it stronger, stiffer and more waterproof.</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable in the context of making improvements to my product.</p>	<p>I can explore and evaluate existing products in the context of tasting salads made mainly from root vegetables.</p> <p>I can prepare and make a healthy salad made from root vegetables.</p> <p>I can prepare a fish salad.</p> <p>I can prepare a fruit salad.</p> <p>Select from and use a range of tools and equipment to perform practical tasks.</p> <p>Select from and use a range of tools and equipment to perform practical tasks in the context of preparing fruit salads.</p>
Knowledge			<p>I can name different fruits and vegetables.</p> <p>I can explain where some food grows.</p> <p>I can explain why I need to eat fruit and vegetables.</p> <p>I can explain where fish comes from and why it is important to eat fish.</p> <p>I can explain where different fruits come from.</p>

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Visit/Special Occasions			
Year 3	Edible Gardens	Mechanical posters	Let's go Fly a Kite
Vocabulary	<p>Herb, thyme, mint, parsley, tarragon, rosemary, basil, seed, balanced meal, complex carbohydrates, vitamins, minerals, dairy, fats, sugars, nutrition, polytunnels, glass houses, seeds, plants, calyx, pollinate, seasonality, smoothie, measure, millilitre, litre, seed, pinch out, sow, boil, simmer, seasoning, bruschetta, grate, chop, heat source, hob.</p>	<p>Design brief, recycle, mechanism, mechanical system, moving, lever, linkage, design brief, pivot, input, output, Mechanism, lever, linkage, design brief, generate, loose/fixed pivot, guide/bridge, system, annotated sketch, criteria, adapt, prototype, evaluate, mock-up, high-quality, finish, techniques, select, accuracy, tools, equipment, materials, components, replicate, evaluate, improve</p>	<p>Key events, design and technology, ideas, kite, parts, function, bridle, line, tow point, keel, sail, spars, tail, shape, delta, diamond, rokkaku, sled, Design criteria, prioritise, decoration, materials, structure, frame, strength, stiffen, bridle, line, tail, design criteria, test, evaluate.</p>
Skills	<p>I can use kitchen tools correctly to prepare and make a tasty and nutritious drink. I can prepare and make a healthy and tasty meal using tomatoes as my main ingredient.</p> <p>I can prepare and cook a pesto and pasta dish using a range of cooking techniques. Select from and use a wider range of tools and equipment to perform practical tasks accurately in the context of kitchen tools.</p>	<p>I can investigate mechanical systems. I can make mechanical systems which use levers and linkages. I can develop design criteria to help me design innovative product. I can use sketches to develop and communicate ideas. I can use prototypes to develop my ideas. I can select and use the correct tools and equipment accurately. I can carefully select materials and use different techniques. I can name the parts and functions of a lever and linkage mechanical system. I can evaluate my moving poster.</p>	<p>I can explain how key events and individuals in design and technology have helped shape the world. I can communicate my existing understanding about kites. I can investigate kite shapes. I can select from and use different materials and components. I can develop design criteria. I can develop and communicate a design for my kite. I can accurately measure and cut the shape of the body of the kite and join it to the frame structure. I can make a strong and stiff frame structure to support the kite. I can evaluate my kite.</p> <p>Investigate and analyse a range of existing products in the context of investigating the different parts of a kite and their functions. Investigate and analyse a range of existing products in the context of investigating the different shapes of kites. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities in the context of selecting materials and components to make kite shapes out of. Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately in the context of measuring and cutting the body of the kite. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in the context of strengthening</p>

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			a frame structure to support the kite. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work in the context of testing the kite and then using their own design criteria to evaluate it.
Knowledge	<p>I can name some herbs and know how to grow them.</p> <p>I can explain what makes a diet healthy and varied and can cook a healthy balanced meal.</p> <p>I can explain where, when and how strawberries are grown in the United Kingdom.</p> <p>I can explain when tomatoes are in season in the United Kingdom and can say where and how they are grown.</p>	I know the name and function of the parts of a lever and linkage system.	<p>I can name and explain the function of the different parts of a kite.</p> <p>Understand how key events and individuals in design and technology have helped shape the world in the context of how kites have helped shape the world</p> <p>Understand how key events and individuals in design and technology have helped shape the world in the context of how kites have helped shape the world.</p>
Visit/Special Occasions			
Year 4	Battery operated Lights	Juggling Balls	The Great Bread Bake Off
Vocabulary	STEM, science, design and technology, engineering, mathematics, chronological, events, individuals, changing, inventors, mains, battery, operated, energy, electricity, conductor, insulator, connect, series, fault, parallel, circuit, components, symbol, electrical systems, design brief, path, current, conductor, insulator, switch, turn switch, micro switch, connect, circuit, components, select, materials, components, switch, make, functional, aesthetic, finished, quality, assemble, evaluate, specification, design criteria.	Explore, textiles, evaluate, interpret, product, analysis, star profile, user, design, brief, design criteria, annotate. Tie-dye, technique, decorate, annotate, cut, shape, functional, hem, template, stitch, decorate, functional, technique, quality, shape, join, overcast stitch, aesthetic, evaluate, test.	Pioneer, design, brand, industry, product, market research, texture, appearance, flavour, design criteria, shape, knot, original, annotated, ingredients, yeast, knead, dough, rise.
Skills	<p>I can explain how key events and individuals in design and technology have helped shape the world.</p> <p>I can make and represent different types of circuits.</p> <p>I can make and use switches</p> <p>I can develop design criteria and a design.</p> <p>I can develop and communicate a design for my light.</p>	<p>I can investigate and evaluate juggling balls.</p> <p>I can follow design criteria to help me create and communicate my ideas.</p> <p>I can perform tie-dye as a technique for decorating my fabric.</p> <p>I can research and trial different fillings for my juggling ball and decide upon the most functional one.</p> <p>I can cut around a template and use running stitch to create a hem.</p>	<p>I can find out about important people and events in the past that have shaped the way bread is made and sold today.</p> <p>I can investigate and analyse existing products according to their characteristics, in the context of different breads made by Warburtons.</p> <p>I can develop design criteria.</p> <p>I can shape dough.</p>

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	<p>I can select materials and components to make my light. I can create a well-finished product. I can complete a detailed evaluation of my finished product.</p>	<p>I can use a functional technique to carefully decorate my fabric. I can join my juggling ball using an appropriate stitch and create my finished shape. I can evaluate my product.</p>	<p>I can think of original ideas for a product based on my design criteria. I can develop designs based on my design criteria and clearly communicate my final design. I can select ingredients and kitchen equipment to help me follow a bread making recipe. I can measure ingredients accurately to the nearest gram and millilitre.</p>
Knowledge	<p>Understand how key events and individuals in design and technology have helped shape the world in the context of looking at technological developments in the way we light our homes. Understand how we use electrical systems in their products (for example, series circuits, incorporating switches, and bulbs) in the context of understanding how a series and parallel circuit can be used to light a bulb. Understand how switches can be made and used in circuits.</p>	<p>To acquire a broad range of subject knowledge and draw upon disciplines such as mathematics in the context of using graphs to analyse existing juggling balls.</p>	<p>Understand how key events and individuals in design and technology have helped shape the world in the context of the history behind Warburtons.</p>
Visit/Special Occasions			