

Harlington and Sundon Academy Trust

School: Sundon Lower School

Curriculum Progression for: DT



Intent	Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and DT. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education make an essential contribution to the creativity, culture, wealth and well-being of the nation.
EYFS	Children should come to Year 1 with the following skills and knowledge. Physical Development (fine motor skills) <ul style="list-style-type: none">● Use a range of small tools, including scissors, paintbrushes and cutlery. Expressive Arts and Design (creating with materials) <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.● Share their creations, explaining the process they have used.

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KS1	Autumn 2	Spring 2	Summer 2
(Year A)	Fabric faces	Moving pictures	Sensational salads
Vocabulary	Explore, fabric, textile, lace, felt, corduroy, jean, satin, silk, cotton, velvet, velour, ribbon, wool, fur, evaluate, hessian, attach, Template, line, shape, oval, round, square, heart, tone, Design, criteria, tools, criteria, tools, join, cut, evaluate.	Moving, picture, book, story, traditional tale, lever, slider, pivot, wheel, push, pull, direction, up, down, left, right, evaluate, annotated drawing, product, slider, moving, mechanism, lever, assemble, split pin, pivote, moving, picture, wheel, disc, assemble, reassemble, split pin, fixed, push, cut, draw, design criteria, annotated sketch, idea, discuss, choose, drawing, label, appealing, evaluate, make, improve.	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, blend, grate, mix, zest, juice, chop, slice, peel, cut, combine, recipe.
Skills	<p>Begin to select tools and materials; use correct vocabulary to name and describe them.</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>With help measure, cut and score with some accuracy.</p> <p>Learn to use hand tools safely and appropriately.</p> <p>Start to assemble, join and combine materials in order to make a product.</p> <p>Start to choose and use appropriate finishing techniques based on own ideas</p> <p>Explore fabrics.</p> <p>Explore and evaluate how hair is created using different materials.</p> <p>Select a material and shape it</p> <p>Join fabrics together and attach different materials.</p> <p>Cut on a line and use a template to create a face.</p> <p>Create and follow a design</p> <p>Think of ideas and discuss them.</p>	<p>Select tools and materials; use correct vocabulary to name and describe them.</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>With help measure, cut and score with some accuracy.</p> <p>Learn to use hand tools safely and appropriately.</p> <p>Start to assemble, join and combine materials in order to make a product.</p> <p>Start to choose and use appropriate finishing techniques based on their own ideas.</p> <p>Start to understand that mechanical systems such as levers</p> <p>Explore and evaluate an existing product.</p> <p>Use a mechanism in their own product.</p> <p>Make a lever and use it in their own product.</p> <p>Make a wheel and use it in their own product.</p> <p>Design a working product thinking about who it is for and what it needs.</p> <p>Make decisions about their product design using an annotated sketch.</p> <p>Use mechanisms to make a product.</p>	<p>Basic food handling, hygienic practices and personal hygiene, including how to control risk by following simple instructions.</p> <p>To use a variety of simple tools and equipment.</p> <p>Taste salads made from root vegetables and explain what I like about them and how they could be improved.</p> <p>Say which salad I liked the most and why.</p> <p>Follow the food hygiene rules when preparing food.</p> <p>Use kitchen equipment safely when preparing food.</p> <p>Assemble and combine ingredients.</p> <p>Select and safely use a zester and juicer.</p> <p>Chop using kitchen scissors and a safe knife.</p> <p>Follow a simple recipe.</p>

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	Carefully select materials. Follow a design.		
Knowledge			<p>Know that fruit and vegetables have nutritional value and are an important part of our diet.</p> <p>Understand that food processing can affect appearance, texture, odour and taste.</p> <p>Recognise and name at least 5 different fruits and vegetables.</p> <p>Name some root vegetables.</p> <p>Explain that some fruit and vegetables grow above the ground and some grow below the ground and know which are which.</p> <p>Explain that it is important to eat at least 5 portions of fruit and vegetables a day to help give me energy and keep my body healthy.</p> <p>Explain that fruit and vegetables contain lots of vitamins and minerals.</p> <p>Say the different types of water that the fish we eat live in.</p> <p>Name at least two health benefits of eating fish.</p> <p>Name some fruits that grow in the UK.</p> <p>Explain why some fruits don't grow in the UK and can say where these fruits grow.</p>
Visit/Special Occasions			

Harlington and Sundon Academy Trust

School: Sundon Lower School

Curriculum Progression for: DT



KS1	Autumn 2	Spring 2	Summer 2
(Year B)	Pirate Paddy's packed lunch	Dips and Dippers	Fabric bunting
Vocabulary	Evaluate, product, existing, disassemble, materials, water, select, tools, equipment, safety, area, join, tape, glue, structure, hinges, proof, strong, reclaimed, design criteria, specification, test, stronger, stable, stiffer, retest, improvements, appealing.	Ingredients, dips, evaluate, senses, taste, texture, smell, appearance, dipper, explore, sensory, evaluating, crunchy, dry, hard, sweet, juicy, protein, dairy, fruit, vegetables, carbohydrate, balanced, diet, varied, hygiene, blend, grate, crush, mix, peel, chop, slice, layered, marbled, The Bridge, The Claw, context, ingredients, equipment, method, design, evaluate, design criteria, plan	Evaluate, product, bunting, existing, design, program, graphics, computer, template, felt, trace, accurately, skill, needle, thread, running stitch, seam, materials, fabrics, join, select, properties, join, glue, staple, sew, starting off, finishing off
Skills	<p>Start to know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</p> <p>Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</p> <p>Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing and spreading.</p> <p>Start to understand that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate'</p> <p>Begin to know that to be active and healthy, food and drink are needed to provide energy for the body.</p> <p>Use kitchen tools correctly.</p> <p>Prepare and cook a healthy and tasty meal using tomatoes as a main ingredient.</p>	<p>Basic food handling, hygienic practices and personal hygiene, including how to control risk by following simple instructions.</p> <p>To use a variety of simple tools and equipment.</p> <p>Know that fruit and vegetables have nutritional value and are an important part of our diet.</p> <p>Evaluate different dips</p> <p>Explore different dippers and describe them.</p> <p>Make dips and dippers.</p> <p>Plan an appealing dip and dipper and clearly show ideas.</p> <p>Follow a plan.</p> <p>Evaluate their own dip and dipper.</p>	<p>Begin to select tools and materials; use correct vocabulary to name and describe them.</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>With help measure, cut and score with some accuracy.</p> <p>Learn to use hand tools safely and appropriately.</p> <p>Start to assemble, join and combine materials in order to make a product</p> <p>Demonstrate how to cut, shape and join fabric to make a simple product. Use basic sewing techniques.</p> <p>Start to choose and use appropriate finishing techniques based on own ideas</p> <p>Evaluate a bunting flag.</p> <p>Design their own bunting flag.</p> <p>Use a paper template to cut out a fabric shape.</p> <p>Use a running stitch to join fabric.</p> <p>Select fabrics that are suitable for decorating.</p> <p>Join fabrics.</p> <p>Evaluate their product.</p>
Knowledge	Name some herbs and know how to grow them. Explain what makes a diet healthy. and varied and cook a balanced meal.	Explain where different foods come from. Understand that food processing can affect appearance, texture, odour and taste.	

Harlington and Sundon Academy Trust

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Curriculum Progression for: DT



	Explain where, when and how strawberries are grown around the UK. Explain when tomatoes are in season in the UK.		
Visit/Special Occasions			

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School: Sundon Lower School

Curriculum Progression for: DT



KS2	Autumn 2	Spring 2	Summer 2
(Year A)	Mechanical posters	Fly me a kite	Edible Garden
Vocabulary	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, input, output, mechanism, lever, linkage, design brief, annotated sketch, generate, design criteria, adapt, prototype, evaluate, mock-up, high-quality, finish, techniques, select, improve, function, lever, linkage, input, output, design criteria, accuracy, tools, equipment, materials, components, replicate	Key events, design and technology, ideas, kite, parts, function, bridle, line, tow point, shape, delta, diamond, rokkaku, sled, keel, sail, spars, tail, design criteria, prioritise, decoration, shape, structure, frame, strength, stiffen, line, tail, design criteria, test, evaluate, materials	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.
Skills	Investigate different lever and linkage mechanisms Make a mechanism that uses linkage and levers Develop design criteria and design ideas for a moving poster Select and use correct tools to make a moving poster Select materials to produce a high-quality finish Know the name and function of the parts of a lever and linkage system Evaluate their own moving poster Investigate mechanical systems. Make mechanical systems which use linkages and levers. Develop design criteria to design a product. Use sketches to develop and communicate ideas. Use prototypes to develop ideas. Carefully select materials and use different techniques.	With growing confidence generate ideas for an item, considering its purpose and the user/s. Start to order the main stages of making a product. Identify a purpose and establish criteria for a successful product. Understand how well products have been designed, made, what materials have been used and the construction technique. Understand how to reinforce and strengthen a 3D framework. Start to measure, tape or pin, cut and join fabric with some accuracy. Now sew using a range of different stitches, to weave and knit Investigate kite shapes. Select from and use different materials. Develop a design for a kite. Accurately measure and cut the shape of a body for a kite. Make a strong and stiff structure to support the kite.	Prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing and spreading. Use kitchen tools correctly. Prepare and cook a healthy and tasty meal using tomatoes as a main ingredient.

Harlington and Sundon Academy Trust

School: Sundon Lower School

Curriculum Progression for: DT



		Evaluate the kite design.	
Knowledge	Identify levers and linkages. Explain the difference between a lever and a linkage.	Explain how key events and individuals in technology have helped shape the world. Name and explain the function of different parts of a kite	Start to know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. Start to understand that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' Begin to know that to be active and healthy, food and drink are needed to provide energy for the body. Name some herbs and know how to grow them. Explain what makes a diet healthy. and varied and cook a balanced meal. Explain where, when and how strawberries are grown around the UK. Explain when tomatoes are in season in the UK.
Visit/Special Occasions			

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Curriculum Progression for: DT



KS2	Autumn 2	Spring 2	Summer 2
(Year B)	Battery operated lights	The great bread bake off	Juggling balls
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, mains, battery, operated, energy, path, current, electricity, conductor, insulator, switch, turn switch, micro switch, connect, circuit, components, specification, prioritise, decoration, shape, materials, annotate, sketch, cross-sectional, original, innovative, purpose, select, materials, components, make, functional, aesthetic, finished, quality, assemble, evaluate, specification, design criteria	Pioneer, design, brand, industry, product, market research. texture, appearance, flavour, product, market research, design criteria, shape, knot, original, annotated, ingredients, yeast, knead, dough, rise	Explore, textiles, evaluate, interpret, product, analysis, star profile, user, and 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
Skills	To design a product to fit a brief Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]	Learn the history behind Warburton's Investigate breads made by Warburton's Create a design criterion for a new type of bread Shape salt dough Create initial designs for a new bread product Make a new bread product Investigate and analyse existing products according to their characteristics. Develop a design criterion. Shape a dough. Develop designs based on a design criterion. Clearly communicate a final design idea. Select ingredients and kitchen equipment to follow a recipe. Knead and bake.	Carry out a product analysis of existing juggling balls Use graphs to analyse existing juggling balls Design a circus themed juggling ball Crate a tie-dye background for a juggling ball Choose a filling for a juggling ball Cut, shape and hem a juggling ball Use a functional method of decorating a fabric Shape and join a juggling ball Evaluate their own juggling ball Investigate and evaluate juggling balls. Follow a design criterion to help create and communicate ideas. Perform tie-dye as a technique for decorating. Research and trial different fillings for a juggling ball. Use a functional technique to carefully decorate a fabric. Use an appropriate stitch to create a finished shape.

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			Evaluate their own product.
Knowledge	To understand how to form an electrical circuit.	Find out about important people and events in the past that have shaped the way bread is made and sold today.	
Visit/Special Occasions			