JOURNEY CURRICULUM

Design and Technology

Our Ultimate End Goal:
What will our designers to be able to do when they leave us?

- What will our designers to be able to do when they leave us?
- By the time our designers leave Sharley Park Community Primary School they will have become resourceful, innovative, enterprising and capable citizens.
- They will have been inspired by inventors, designers, engineers, chefs band manufacturers who have developed ground-breaking products and in doing so made the world a better place.
- Our designers will be able to critique, evaluate and test their ideas and products and the work of others.
- They will use their creativity and imagination with confidence, to 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 will be given the opportunities to collaborate with others and to reflect on the products they have created.
- Each year, the children will utilise their skills and knowledge within the field of Design Technology to make the world a better place by designing, making and selling products as part of Sharley Park Enterprise Events.

Curriculum Coverage (NC) What are the most basic requirements from the National Curriculum?						
EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6

Design ➢ design purposeful, functional, appealing products for themselves and other 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 Make ➢ 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. Evaluate ➢ explore and evaluate a range of existing products ➢ evaluate their ideas and products against design criteria Technical knowledge ➢ 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. Cooking and nutrition: ➢ use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.	Design ➢ 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 Make ➢ 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 and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate ➢ 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 Technical knowledge ➢ 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 program, monitor and control their products. Cooking and Nutrition: ➢ 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 & processed

At Sharley Park Community Primary School, we will use the six essentials of good practice in D&T:

- USER: Children should have a clear idea of who they are designing their project for – considering needs, wants, interests or preferences
- PURPOSE: children should know what the products they design and make are for. It should perform a clearly defined task that can be evaluated in use.
- FUNCTIONALITY: Children should design and make products that function in some way to be successful.
- DESIGN DECISIONS: Children need opportunities to select materials, components and techniques INNOVATION: Children need scope to be original in their thinking and need open starting points AUTHENTICITY: Children should design and make believable, real and meaningful products.

Each of the learning experiences will ensure that the children have 3 stages of learning:

- Investigative and Evaluative Activities: Children learn from a range of existing products, learning about D&T in the wider world
- Focused Tasks: Where they are taught specific technical knowledge, designing skills and making skills
- Design, Make and Evaluate Assignment: where children create functional products with users and purposes in mind

This Curriculum Map is supported by the Design and Technology Association's (DATA) Project on a Page which will give the teaching team a starting point for their planning.

PROCEDURAL KNOLWEDGE –

 What skills do we want our designers to have to support the DESIGNING, MAKING and EVALUATING stages?
How will these skills build on what went before and help prepare our children for what is coming next?
These skills will all be taught during one full day of Design Technology.

Skill	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

<u>Background Research – Session 1</u> Exploring context and existing products	Understand what a product is and who it is for Understand how a product works and how it is used Identify where you might find this product	Understand what a product is and who it is for Understand how a product works and how it is used Identify where you might find this product Identify the materials used to make the product Express an opinion about the product	Identify who made the product, when it was made and what its purpose is Identify what the product has been made from Evaluate the product on design and use	Identify who made the product, when it was made and what its purpose is Identify what the product has been made from Evaluate the product on design and use	Identify who made the product, when it was made and what its purpose is Identify what the product has been made from and how environmentally friendly the materials are Evaluate the product on design, appearance and use Identify the cost to make the product	Identify who made the product, when it was made and what its purpose is Identify what the product has been made from and how environmentally friendly the materials are Evaluate the product on design, appearance and use Identify the cost to make the product and

			Brain Builders: Research facts about famous inventors/ chefs / designers etc. linked to product	Brain Builders: Research facts about famous inventors/ chefs / designers etc. linked to product	Brain Builders: Research facts about famous inventors/ chefs / designers etc. linked to product	whether it has any other purposes e.g. Leading innovation of the time, trend setting Brain Builders: Research facts about famous inventors/ chefs / designers etc. linked to product

<u>Design Criteria – Session 2</u> Understanding their intended users and their own product	Explain what product they will be designing and making Explain who their product will be used by Describe what their product will be used for	Use own experiences and existing products to develop ideas Explain what product they will be designing and making Explain who their product will be used by Describe what their product will be used for and how it will work Explain why their product is suitable for the intended user	Brain Builders: Understand and gather information about what a particular group or people want from a product Describe the purpose of their product and how it will work Identify design features that will appeal to intended users Explain how parts of their product works Generate realistic ideas that meet needs of user	Brain Builders: Understand and gather information about what a particular group or people want from a product Describe the purpose of their product Identify design features that will appeal to intended users Explain how parts of their product works Develop their own design criteria and use for planning ideas Generate realistic ideas that meet needs of user and take into account availability of resources	Brain Builders: Understand and gather information about what a particular group or people want from a product, using questionnaires, surveys etc. Describe the purpose of their product Identify design features that will appeal to intended users Explain how parts of their product will work Develop their own design criteria and use for planning ideas Generate innovative ideas that meet needs of user and take into	Brain Builders: Understand and gather information about what a particular group or people want from a product, using questionnaires, surveys etc. Describe the purpose of their product Identify design features that will appeal to intended users Explain how parts of their product will work Create a design description for their product Highlight the impact of time, resources and cost within their design ideas

					account availability of resources	Generate innovative ideas that meet needs of user

<u>Planning – Session 3</u> Communicating ideas and creating prototypes for product	Discuss what their steps for making could be Represent ideas through talking and drawing	Discuss what their steps for making could be Represent ideas through talking, drawing and computing – (where appropriate) Choose materials to use based on suitability of their properties Create templates/pattern pieces and explore materials whilst developing ideas	Share and discuss ideas with others Order the main stages of making Choose materials to use based on suitability of their properties Represent ideas in diagrams, annotated sketches and computer-based programmes (where appropriate) Create pattern pieces and prototypes	Share and discuss ideas with others Order the main stages of making Choose materials to use based on suitability of their properties Represent ideas in diagrams, annotated sketches and computer-based programmes (where appropriate) Create pattern pieces and prototypes	Share and discuss ideas with others Record a step by step plan for making Produce lists for the tools, equipment and materials they will be using Choose materials to use based on suitability of their properties and aesthetic qualities Represent ideas in diagrams, annotated sketches and computer-based programmes (where appropriate) Create pattern pieces and prototypes	Share and discuss ideas with others Record a step by step plan for making Produce lists for the tools, equipment and materials they will be using Choose materials to use based on suitability of their properties and aesthetic qualities Represent ideas in diagrams, annotated sketches and computer-based programmes (where appropriate) Create pattern pieces and prototypes
<u>Making –Session 4-5</u> Selecting the tools and applying the practical skills and techniques	Choose suitable tools for making Follow safety and food hygiene procedures	Choose suitable tools for making whilst explaining why they should be used Follow safety and food hygiene procedures	Choose suitable tools for making whilst explaining why they should be used Use design criteria whilst making	Choose suitable tools for making whilst explaining why they should be used Use design criteria whilst making	Choose suitable tools for making whilst explaining why they should be used Use design criteria whilst making	Choose suitable tools for making whilst explaining why they should be used Use design criteria whilst making

	Measure, mark, cut and shape materials and components Join, assemble and combine materials and components	Measure, mark, cut and shape materials and components Join, assemble and combine materials and components Use finishing techniques, including skills learnt in Art	Follow safety and food hygiene procedures Measure, mark, cut and shape materials and components with some accuracy Join, assemble and combine materials and components with some accuracy Use finishing techniques, including skills learnt in Art with some accuracy	Follow safety and food hygiene procedures Measure, mark, cut and shape materials and components with some accuracy Join, assemble and combine materials and components with some accuracy Use finishing techniques, including skills learnt in Art with some accuracy	Follow safety and food hygiene procedures Measure, mark, cut and shape materials and components accurately Join, assemble and combine materials and components accurately Demonstrate problem solving skills when encountering a mistake or practical problem Use finishing techniques, including skills learnt in Art accurately	Follow safety and food hygiene procedures Measure, mark, cut and shape materials and components accurately Join, assemble and combine materials and components accurately Demonstrate problem solving skills when encountering a mistake or practical problem Use finishing techniques that involve a number of steps, including skills learnt in Art accurately

<u>Evaluation – Session 6</u> Referring to planning and initial ideas in evaluating their product	Talk about their design ideas and what they have made Make simple judgements of how the product met their design ideas	Talk about their design ideas and what they have made Make simple judgements of how the product met their design ideas Suggest how their product could be improved	Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product	Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product	Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product	Use design criteria to evaluate product – looking at quality of end product and design and whether it is fit for its intended purpose Consider the views of others, including intended user, whilst evaluating product
<u>Teaching cooking and nutrition</u> Understanding food and food preparation	<u>Across KS1:</u> Understand that food comes from plants or animals Understand that food has to be farmed, caught, or grown		<u>Lower KS2:</u> Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe Understand that recipes can be changed by adding or taking away ingredients Understand that the seasons can affect food produce		<u>Upper KS2:</u> Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe Understand that the seasons can affect food produce Understand that sometimes raw ingredients need to be processed before they can be used in cooking (eg. De-feathering a chicken) Understand that recipes can be adapted to change the appearance, taste and aroma of a dish	

<u>Teaching cooking and nutrition</u> Food preparation, cooking and nutrition	<u>Across KS1:</u> Sort foods into the 5 groups using The Eatwell Plate Identify that people should eat at least 5 portions of fruit and vegetables a day Prepare simple dishes hygienically and safely without a heat source Use cooking techniques such as: cutting, peeling and grating	<u>Lower KS2:</u> Sort foods into the 5 groups using The Eatwell Plate and identify that this makes up a healthy diet Identify that food and drink are needed to provide energy for a healthy and active lifestyle Identify that people should eat at least 5 portions of fruit and vegetables a day Prepare simple dishes hygienically and safely, where needed with a heat source Use cooking techniques such as: chopping, peeling, grating slicing, mixing, spreading, kneading and baking	<u>Upper KS2:</u> Sort foods into the 5 groups using The Eatwell Plate and identify that this makes up a healthy diet Identify that food and drink provide certain nutritional and health benefits which support a healthy lifestyle Identify that people should eat at least 5 portions of fruit and vegetables a day Prepare simple dishes hygienically and safely, where needed with a heat source Use cooking techniques such as: chopping, peeling, grating slicing, mixing, spreading, kneading and baking

PROPOSITIONAL KNOWLEDGE –

- What key concepts or knowledge will our designers have?
- What knowledge do we want to emphasise? How will knowledge be built on what went before and prepare our children for what is coming next?
- Below highlight the National curriculum expectations for each year group.
- At Sharley Park, the way in which we deliver this will be different as we will be covering one topic as a whole school on designated DT days. For example in Autumn 1 all of the children will practise the skill of mechanical systems.
- On these days, each year group will be practising the same skills but producing something in line with their year group objectives. Below are the national curriculum expectations for each year group which progresses from previous years (see previous year objectives to make sure these are covered before moving on to more year based specific objectives).
- EYFS objectives come from the Early Learning goals in the Statutory Framework.

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6

	Mechanical systems Know how mechanical systems create movement select from and use a wide range of materials and components explore and use mechanisms [for example, levers, sliders. Structures - build structures, exploring how they can be made stronger, stiffer and more stable select from and use a wide range of materials and components, including construction materials Freestanding structures Know the correct technical vocabulary for the projects that they are undertaking Know how freestanding structures can be made stronger, stiffer and more stable Food – Use the basic principles of a healthy and varied	Mechanical systems **See previous year objectives.** Know the correct technical vocabulary for the projects that they are undertaking Know about the simple working characteristics of materials and components Know about the movement of simple mechanisms such as levers, sliders, **wheels and axles** Structures **See previous year objectives.** Progression of **accuracy** within the materials chosen and the security of them. Food **See previous year objectives.** All food comes from plants or animals that food has to be farmed, grown elsewhere or caught how to name and sort foods into the five groups Textiles **See previous year objectives.** Templates and joining techniques Know the	Mechanical systems – **See previous year objectives.** Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately understand and use mechanical systems in their products [for example levers and linkages] Structures 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 and components, including construction materials Food select from and use a wider range of materials and components, textiles and ingredients, according to their functional properties and aesthetic qualities understand and apply the principles of a healthy and varied diet prepare and cook a	Mechanical systems **See previous year objectives.** finishing more accurately Structures **See previous year objectives.** Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Food select from and use a wider range of materials and components, textiles and ingredients, according to their functional properties and aesthetic qualities 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. Textiles select from and use a wider range of materials and components,	Mechanical systems **See previous year objectives.** finishing accurately understand and use mechanical systems in their products [for example, levers, linkages, gears, pulleys Structures **See previous year objectives.** Select accurately Frame structures Know the correct technical vocabulary for the projects that they are undertaking Know how to make strong, stiff shell structures Know how to reinforce and strengthen a 3d framework Food select from and use a wider range of materials and components, textiles and ingredients, according to their functional properties and aesthetic qualities 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	Mechanical systems **See previous year objectives.** Know the correct technical vocabulary for the projects that they are undertaking Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Structures **See previous year objectives.** Food select from and use a wider range of materials and components, textiles and ingredients, according to their functional properties and aesthetic qualities 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. Textiles select from and use a

	diet to prepare dishes Understand where food comes from. select from and use a wide range of materials and components, including ingredients Preparing fruit and veg everyone should eat at least 5 portions of fruit and veg a day how to prepare simple dishes safely and hygienically, without using a heat source how to use techniques such as cutting, peeling and grating that food ingredients should be combined based on their sensory characteristics Textiles select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Enterprise Know about products, their value, people's opinions, a justification of why, profit, purpose	correct technical vocabulary for the projects that they are undertaking Know that a 3-d textiles product can be assembled from two identical fabric shapes Enterprise **See previous year objectives.**	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. Textiles select from and use a wider range of materials and components, textiles and ingredients, according to their functional properties and aesthetic qualities Electrical systems understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Enterprise **See previous year objectives.**	textiles and ingredients, according to their functional properties and aesthetic qualities Electrical systems – Simple circuits and switches **See link to Y4 Science curriculum – Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery. (see more) Know the correct technical vocabulary for the projects that they are undertaking Know how simple and more complex electrical circuits and components can be used to create functional products understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and	how a variety of ingredients are grown, reared, caught and processed. Textiles select from and use a wider range of materials and components, textiles and ingredients, according to their functional properties and aesthetic qualities Electrical systems understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Enterprise **See previous year objectives.**	wider range of materials and components, textiles and ingredients, according to their functional properties and aesthetic qualities Electrical systems understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products. Enterprise **See previous year objectives.**

				motors] Enterprise **See previous year objectives.**		

			Food – healthy and varied diet Know the correct technical vocabulary for the projects that they are undertaking Know that food ingredients can be fresh, pre-cooked and processed Know that food is grown, reared and caught -how to cook a variety of mainly savoury dishes safely and hygienically, with the use of a heat source -how to use a range of techniques including: peeling, chopping, slicing, grating, mixing, spreading, kneading, baking -a healthy diet is made up of a variety and balance of different food and drink -to be active and healthy, food and drink are needed to provide energy for the body	Textiles – 2d shape to 3d product Know the correct technical vocabulary for the projects that they are undertaking Know that a single fabric shape can be used to make a 3d textiles product Structures	Food – Celebrating culture and seasonality Know the correct technical vocabulary for the projects that they are undertaking that food is grown, reared and caught how to cook a variety of mainly savoury dishes safely and hygienically, with the use of a heat source how to use a range of techniques including: peeling, chopping, slicing, grating, mixing, spreading, kneading, baking -a healthy diet is made up of a variety and balance of different food and drink -to be active and healthy, food and drink are needed to provide energy for the body That a recipe can be adapted by adding or substituting one or more ingredients	Textiles – Combining different fabric shapes Know the correct technical vocabulary for the projects that they are undertaking Children should know that a 3d textiles product can be made from a combination of fabric shapes

What key vocabulary will our designers need? Vocabulary is important because it embodies and communicates concepts. This key vocabulary is mainly linked primarily to the exact product the year groups have been making, however this can sometimes be subject to change. This can be used throughout the years and it is explicit to the experiences they will have. Class teachers will discuss key vocabulary related to the exact product during the lesson.

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Mechanical systems movement, split pin, join, push, squeeze, through, mark, attach Structures safe, strong, weak, stable, successful Food fit, taste, look, tasty, sweet, smooth, chewy, chopping, peeling, preparing, ingredients, recipe Textiles decorate, look, details, similar, features	Mechanical systems Mechanic, movement, change, move, slider, lever, slot, guide, card, fastener, split pin, join, pull, push, up, down, Peter rabbit, cut, snip, straight, curve, forwards, backwards, user, purpose, ideas, ease assemble, design, evaluate, mechanism, model, sliders, stencil, target audience, template, test Structures - Freestanding structures cut, fold, join, stick structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder design, make, evaluate, user, purpose, ideas, design criteria, product, function client, design, net, stable, strong, test, weak Food – Preparing fruit and veg soft, juicy,	Mechanical systems – Sliders and levers slider, lever, pivot, slot, bridge/guide card, masking tape, paper fastener, join pull, push, up, down, straight, curve, forwards, backwards, design, make, evaluate, user, purpose, ideas, design criteria, product, function, axle, wheels, chassis, design, evaluation, fix, mechanic, mechanism, model, test, wheel Structures annotate, sketch, strength, attach, join, fasten, stick, tape, structure, wall, tower, product design, purpose, 2D, 3D shapes, taller, shorter function, man made, nbatual, stable, stiff, strong, structure, test, weak Food alternative, diet, balanced, evaluation, expensive, healthy, ingredients, nutrients, packaging, utensils, substitute Textiles – Templates	Mechanical systems – levers and linkages mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating, user, purpose, function prototype, design criteria, innovative, appealing, design brief evaluation, input, lever, linear motion, linkage, motion, oscillating motion, output, pivot, reciprocating motion, rotary motion Structures annotate, sketch, structure, attach, strengthen, durable, square, rectangle, 2D, 3D, design criteria, feature, net, scoring, stable, strong, structure Food – healthy and varied diet Food and nutrition: texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury hygienic, edible, grown, caught, reared, frozen, tinned, processed,	Mechanical systems linkages, levers, movement, pivot, changes, design criteria, motion, annotate, slider, split pins, fastener, structure, strength, ease evaluation, input, lever, linear motion, linkage, motion, oscillating motion, output, pivot, reciprocating motion, rotary motion Structures annotate, sketch, pillars, temples, architecture, attach, cylinder, rectangle, squares, spheres, free-standing, aesthetic, cladding, frame structure, function, inspiration, pavilion, reinforce, target, texture, theme Food theme, purpose, inspiration, taste, ingredients, balanced, quantities, weighing, flavour, method, packaging, prototype, recipe, utilities, unit of measurement Textiles – 2d shape to 3d product fabric, fastening, compartment, zip, button, structure,	Mechanical systems ease, stiff, pulley, gears, strength, design criteria, fastener, attach, movement, smooth, continual Structures – Frame structures frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research functional Food – Celebrating culture and seasonality fat, sugar, carbohydrates, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonally utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, cross, dough, wholemeal, contamination, diet, ethical issues, farm, healthy ingredients, savoury, sweet packaging, research,	Mechanical systems – Pulleys or gears pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor circuit, switch, circuit diagram annotated drawings, exploded diagrams mechanical system, electrical system, input, process, output design decisions, functionality, innovation, authentic, user, purpose, design specification, design brief exploded-diagram, function, input, motion, net, output, pivot, pneumatic system, thumbnail sketch anxle, frame, function, measure, mark-out, research Structures annotate, sketch, accurate, arched, beam, compression, file, forces, mark-out, measure, predict, reinforce, research, right-angle, shape, strong, structure, suspension, tension, test, truss, weak, cladding, landscape, portrait, modify, plan view, user, vice

	crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients, planning, investigating, tasting, arranging, popular, carton, fruit, healthy, ingredients, peel, peeler, recipe, slice, Textiles decorate, design, fabric, glue, basic stitch, pattern, neat, pin, staple, template, attach, overlap, pre-made	and joining techniques template, pattern pieces, mark out, join, decorate, finish features, suitable, quality, mock-up, design criteria, make, evaluate, user, purpose, function accurate, fabric, stitch, template, sew, shape, running stitch, knot, attach	seasonal, harvested, healthy/varied diet, planning, design criteria, purpose, user, annotated sketch, sensory, evaluations peeling, chopping, slicing, grating, mixing, spreading, kneading, baking fresh, pre-cooked, processed nutrients, recipe, instructions, seasonal food, Textiles accurate, applique, cross-stitch, padding, wadding, decorate, detail, fabric, patch, running-stitch, seam, stencil, stuffing, target audience, season, celebration, customer, template Electrical systems series circuits incorporating switches electrical operate, safety attract, component, design criteria, electrostatic, evaluation, feedback, motion, repel, test	finishing technique, strength, weakness, stiffening, template, stitch, seam, seam allowance user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, aesthetics, function, pattern pieces Electrical systems Simple circuits and switches Series circuit, fault, connection, toggle switch, push to make switch, push to break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile switch control, program, system, input device, output device, user, purpose, function, prototype, design criteria, innovative, appealing, design brief	substitutes, supermarket, vegan, vegetarian, welfare shape, sprinkle, crumble design specification, innovative, research, evaluate, design brief Textiles aesthetic, budget, assemble, sleeve, fabric, fastening, mock-up, net, running-stitch, stencil, audience, customer, template, accurate, annotate, blanket-stitchm detail, fabric, sew, shape, stuffed, stuffing Electrical systems series circuits incorporating switches, bulbs electrical operate, safety battery, bulb, buzzer, cell, component, conductor, electical item, electicity, function, insulator, switch, text, wire	Food Celebrating culture and seasonality fat, sugar, carbohydrates, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonally utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, cross contamination, diet, ethical issues, farm, healthy ingredients, savoury, sweet packaging, research, substitutes, supermarket, vegan, vegetarian, welfare, dough, wholemeal Textiles – Combining different fabric shapes Seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces pins, needles, thread, pinking shears, fastenings, iron transfer paper design criteria, annotate, design decisions, annotate, fabric, fastening, knot, properties, running-stitch, seam, sew, shape, template, thread, unique, functionality, innovation, authentic, user, purpose, evaluate,

						mock-up, prototype Electrical systems Programming and control series circuits incorporating switches, bulbs buzzers and motors electrical operate, safety, battery, bulb, buzzer, cell, component, conductor, electical item, electicity, function, insulator, switch, text, wire, pliers, symmetrical, test, cutters, magnetic field

What experiences do we want our designers to have had? What opportunities will our designers have had to 'make the world a better place'?						
EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Each academic year, the children will have the opportunity to solve real and relevant problems by using their skills and knowledge within the field of Design Technology to make the world a better place by designing, making and selling products as part of Sharley Park Enterprise Events. These events are usually chosen by both DT lead as well as class teacher, linking to their topic in English, a curriculum area or season etc. Children work well when their work is contextual and has a sense of meaning to them.						
			Children should learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products and in doing so made the world a better place: Graham Bosher (Graze) Y4: Y5: Y6: Sir Frederick Henry Royce			

Mechanical systems: Split pin for maths puppet Structures: Build a bridge for Three Billy Goats Gruff Food: Moon rocks, kings Jubilee, Jelly, pancakes Textiles: Sheep day, puppet Enterprise: Class choice Salt dough mouse discs	Mechanical systems: Moving split pin picture for Peter Rabbit Structures- Pet homes Food Gruffalo crumble Textiles Bunny bookmarks Enterprise Class choice	Mechanical systems: Beach buggy's- wheels and axles Structures Great fire of London houses Food Brazilian curry bread linked to topic Textiles Felt birds Enterprise Class choice	Mechanical systems- Stone age moving picture-linkages and levers Structures Photo frames Food Pitta pizzas Healthy Flapjacks Textiles Easter egg decorations Electrical systems Light boxes Enterprise Class choice	Mechanical systems: Nuclear disaster picture book of Chernobyl-linkages and levers. Structures Greek temples Food Teeth biscuits Healthy Flapjacks Textiles Cushions Electrical systems- Light boxes Simple circuits and switches Children design and make games that can be played at school. Enterprise Class choice	Mechanical systems: Tudor boats-pulleys Structures – Frame structures Children to design and make kites Food Cheese scones Textiles Worry monster Pencil cases Electrical systems Lighthouses Enterprise Class choice	Mechanical systems – Pulleys or gears Victorian toys Structures- building bridges (3D frameworks) Food Bread Textiles Class blanket Electrical systems Programming, monitoring and control Homemade doorbell Enterprise Class choice

HOW WE PLAN TO TEACH DESIGN TECHNOLOGY AT SHARLEY PARK

- At Sharley Park, we deliver the DT curriculum through designated whole school DT days. On each of these days, we focus on a specific skill, e.g. Textiles and design, make and evaluate products that link to this skill.

DT days will follow a similar structure across school:

- Researching and looking at focus designers' / focus inspiration
- Technical practice of design and construction skills linked to work taken from the focus designer/ inspiration focus Practice ideas in sketchbooks or challenge skills books
- Make the product
- Self / peer evaluation of the final piece

Key Stage	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Mechanical Systems	Structures	Food Technology	Textiles	TBA	Enterprise

KS1	Mechanical Systems	Structures	Food Technology	Textiles	TBA	Enterprise
KS2	Mechanical Systems	Structures	Food Technology	Textiles	Electrical Systems	Programming, monitoring and control