Henbury View First School

DT Progression of Knowledge

Intent

"Design is a funny word. Some people think design means how it looks. But of course, if you look deeper, it's really how it works." *Steve Jobs*

At Henbury View First School, we value the importance of Design and Technology. The Design and Technology curriculum at Henbury View prepares children to deal with tomorrow's rapidly changing world. It encourages children to become independent, creative problem solvers and thinkers - both as individuals and as part of a team. It enables them to identify the needs and opportunities offered by a product and to respond to them by developing a range of ideas and by making products and systems. Through the study of Design and Technology, they combine knowledge with practical skills to develop an understanding of aesthetic, social and environmental issues, as well as an understanding of function and industry. This allows them to reflect on and evaluate past and present technology, its uses and impacts.

At Henbury View, we intend Design and Technology to be creative and practical and provide children with the chance to problem solve and develop their own creative ideas. We aim to provide our children with the opportunity to use their imagination to design and make products within a variety of contexts, to provide motivation and meaning to their learning. Children will be taught a range of topics including mechanisms, textiles, food technology, structures and electrical systems (in Key Stage 2). Through hands-on, practical experiences we aim for children to leave Year 4 with knowledge and skills of DT which will inspire children to be the chefs, engineers, sculptures, carpenters, designers and architects of the future. We recognise the important role of DT in preparing our children with skills for life which will enable them to be creative individuals who enjoy problem solving and feel secure with creative risk-taking in an increasingly technological world.

Implementation

The teaching and implementation of the Design and Technology Curriculum at Henbury View First School is based on the National Curriculum in KS1 and KS2 and Development Matters in EYFS to ensure a well-structured approach to this creative subject. The Design and Technology curriculum is structured into 5 main strands as derived from the National Curriculum:

- Mechanical Systems
- Structures
- Textiles
- Cooking and Nutrition
- Electrical Systems

A unit of planning from each of the strands is in place for each year group which builds on previous learning and ensures progression in both skills and knowledge and understanding throughout the school. Children design products with a purpose in mind and an intended user of the products. Food technology is implemented across the school with children developing an understanding of where food comes from, the importance of a varied and healthy diet and how to prepare this. Design and technology is a crucial part of school life and learning and it is for this reason that as a school we are dedicated to the teaching and delivery of a high quality Design and Technology curriculum; through well planned and resourced projects and experiences. Design and Technology also embeds our Henbury lily pads. It is an inspiring, rigorous and practical subject, requiring reflectiveness, resourcefulness, and responsibility. Pupils design and make products that solve real and relevant problems within a variety of contexts. Children learn to take risks, be reflective, innovative, enterprising and resilient. Through the evaluation of past and present technology they can reflect upon the impact of Design Technology on everyday life and the wider world.

Key Threads

At Henbury View, we have key threads that run through and across year groups. These will continually be revisited and explored across the academic journey of a child at Henbury. Each thread is underpinned by key vocabulary and knowledge that will be explicitly taught in Design and Technology. The key threads are:

Research	Skill development	Evaluation and Analysis	Opportunities for creative work	Opportunities to plan towards a product	Exposure to and use of multi-media	Great artists and designers	Clarity of purpose

Safety

Throughout our whole curriculum, but especially Design and Technology, we embed safety knowledge and learning to ensure our children understand how to keep themselves and others safe. Where applicable, safety is explicitly taught within context (e.g. knife safety when cooking, electrical safety when making circuits) in order for our children to fully understand how to keep themselves both during the in class activities as well as in the future.

Curriculum Organisation

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Foundation	*Knowledge and skills taught and recapped throughout the year*					
Year 1			Structures	Textiles		Mechanical Systems
Year 2	Mechanical Systems		Cooking and Nutrition		Textiles	
Year 3		Mechanical Systems	Cooking and Nutrition		Textiles	
Year 4	Structures	Electrical Systems			Cooking and Nutrition	

N.B. Curriculum links are made where there are clear overlaps within content and context. However, teachers ensure that strenuous links are not made and that where links are made, the design and technology knowledge is at the forefront of what is taught. This means some of the units are taught discretely. This ensures the understanding that children gain is the knowledge and is not the outcome or context in which it is taught.

Curriculum Overview

	Mechanical Systems	Structures	Textiles	Cooking and Nutrition	Electrical Systems
Foundation	*Knowledge and skills taught and recapped throughout the year*				
Year 1	**Context:** Sliding Images *Children will make sliders by using levers and pivots, thinking carefully about how to cut and join the materials together in their final explorer themed image* **Related Designer:** Jan Pienkowski (Moveable books)	**Context:** UK Monuments *Using UK structures as inspiration, the children explore how to make structures strong, stiff and stable. They use card and paper, modelling and joining these, to create their own structures* **Related Designer:** Norman Foster (The Gherkin)	**Context:** Hand Puppets *Children discover running stitch and how we can use templates to create hand puppets. They use different joining techniques to add decorative features to their puppets* **Related Designer:** Jim Henson (The Muppets)		
Year 2	**Context:** Fire Engines *Children will look at how wheels and axles are used in a variety of products. They then look at these regarding fire engines, designing a chassis and body and cutting dowel to create the axle* **Related Designer:** Frank Hornby (Hornby model trains, Dinky model cars and Meccano model kits)		**Context:** Flags *Children use templates and back stitch to create flags. They add decorative features using stitching, thinking about the importance of neat and accurate stitching as a way to improve strength* **Related Designer:** Captain Emanuel Wynn (Jolly Roger flag)	**Context:** Sandwiches and Wraps *Children learn about the different food types and the importance of nutritional values. They look at ingredient combinations when making their own healthy sandwich or wrap, ensuring they work hygienically* **Related Designer:** Jamie Oliver (Healthy meals)	
Year 3	**Context:** Moving Books *Children discover how levers and linkages can create moving mechanisms in books. They learn about what a fulcrum is and think carefully about the user when creating their own moving books* **Related Designer:** Matthew Reinhart (Pop-up books)		**Context:** Travel Bags *Children use blanket stitch to create travel bags and wallets. They discover how patterns can be used to add detail to designs and experiment with and evaluate a range of fasteners to use on their product* **Related Designer:** Louis Vuitton (Bag maker)	**Context:** Seasonal Vegetable Dish *Children look at the food to fork journey of ingredients grown in the UK. They look at seasonality and the benefits of reducing food imports. They use various cooking methods to create a dish made with seasonal ingredients* **Related Designer:** Yotam Ottolenghi (Vegetarian cuisine)	
Year 4		**Context:** Frame Structures *Children use art straws and eventually wood to create frame structures. They look at how diagonal struts can be used to add strength and stiffness and how stable structures have a wise base* **Related Designer:** Gustave Eiffel (Eiffel Tower)		**Context:** European Meal *Children look at foods and ingredients that are grown across Europe, discovering famous imports. They understand how climate impacts food production and design and adapt a meal for individuals with dietary requirements and choices* **Related Designer:** Antonio Carluccio (Italian cuisine)	**Context:** Torches *Children use their knowledge from science to discover battery powered products and different types of switches. They use this knowledge to design and make their own torches* **Related Designer:** Yoshioka Tokujin (Tokyo 2020 Olympic Torch)

Skill Progression: Designing

	Foundation	Year 1	Year 2	Year 3	Year 4
Curriculum Objectives	Creating with Materials (ELG) • 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	• 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		• 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	
Vocabulary	Material, properties, tools, plan, explore, ideas, model, drawing, discuss, build cut, join, good, bad, change	Planning, investigating, design, evaluate, make, user, purpose, ideas, product	Planning, investigating, design, evaluate, make, user, purpose, ideas, design criteria, product, function, component, template	User, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, drawing, function, planning, design criteria, appealing	User, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, drawing, function, planning, design criteria, appealing, evaluation, cross-sectional drawing, exploded diagrams
Understanding contexts, users and purposes	Explain what they are making and which materials they are using Select materials from a limited range that will meet a simple design criterion (e.g. shiny) Select and name the tools needed to work the materials (e.g. scissors for paper) Explore ideas by rearranging materials Describe simple models or drawings of ideas and intentions	To work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry and the wider environment State what products they are designing and making Explain whether their products are for themselves or other users Describe what their products are for Explain how their products will work Explain how they will make their products suitable for their intended users Use simple design criteria to help develop their ideas		Work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment Describe the purpose of their products Indicate the design features of their products that will appeal to intended users Explain how particular parts of their products work Gather information about the needs and wants of particular individuals and groups Develop their own design criteria and use these to inform their ideas	
Generating, developing, modelling and communicating ideas	Discuss their work as it progresses	Generate ideas by drawing on their own experiences Use knowledge of existing products to help come up with ideas Develop and communicate ideas by talking and drawing Model ideas by exploring materials, components and construction kits and by making templates and mock-ups Use information and communication technology, where appropriate, to develop and communicate their ideas		Share and clarify ideas through discussion Model their ideas using prototypes and pattern pieces Use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas Use computer-aided design to develop and communicate their ideas Generate realistic ideas, focusing on the needs of the user Make design decisions that take account of the availability of resources	

Skill Progression: Making

	Foundation	Year 1	Year 2	Year 3	Year 4
Curriculum Objectives	Creating with Materials (ELG) • 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 Fine Motor Skills (ELG) • Use a range of small tools, including scissors, paint brushes and cutlery	• 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		• 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	
Vocabulary	Material, properties, tools, plan, explore, ideas, model, drawing, discuss, build cut, join, good, bad, change	Planning, investigating, design, evaluate, make, user, purpose, ideas, product	Planning, investigating, design, evaluate, make, user, purpose, ideas, design criteria, product, function, component, template	User, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, drawing, function, planning, design criteria, appealing	User, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, drawing, function, planning, design criteria, appealing, evaluation, cross-sectional drawing, exploded diagrams
Planning	Begin to create their design using basic techniques Start to build structures, joining components together Look at simple hinges, wheels and axles Use technical vocabulary when appropriate Begin to use scissors to cut straight and curved edges and hole pinches to punch holes Explore using/holding basic tools such as a saw or hammer Use adhesives to join materials	Plan by suggesting what to do next Select from a range of tools and equipment, explaining their choices Select from a range of materials and components according to their characteristics		Select materials, components, tools and equipment suitable for the task Explain their choice of tools and equipment in relation to the skills and techniques they will be using Explain their choice of materials and components according to functional properties and aesthetic qualities Order the main stages of making Produce appropriate lists of tools, equipment and materials that they need Formulate step-by-step plans as a guide to making	
Practical skills and techniques		Follow procedures for safety and hygiene Use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components Measure, mark out, cut and shape materials and components Assemble, join and combine materials and components Use finishing techniques, including those from art and design		Follow procedures for safety and hygiene Use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components Measure, mark out, cut and shape materials and components with some accuracy Assemble, join and combine materials and components with some accuracy Apply a range of finishing techniques, including those from art and design, with some accuracy Accurately measure, mark out, cut and shape materials and components Demonstrate resourcefulness when tackling practical problems	

Skill Progression: Evaluating

	Foundation	Year 1	Year 2	Year 3	Year 4
Curriculum Objectives	Creating with Materials (ELG) • 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	• explore and evaluate a range of existing products • evaluate their ideas and products against design criteria		• 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	
Vocabulary	Material, properties, tools, plan, explore, ideas, model, drawing, discuss, build cut, join, good, bad, change	Planning, investigating, design, evaluate, make, user, purpose, ideas, product	Planning, investigating, design, evaluate, make, user, purpose, ideas, design criteria, product, function, component, template	User, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, drawing, function, planning, design criteria, appealing	User, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, drawing, function, planning, design criteria, appealing, evaluation, cross-sectional drawing, exploded diagrams
Own ideas and products	Say what they like and do not like about items they have made and attempt to say why Begin to talk about their designs as they develop and identify good and bad points	Talk about their design ideas and what they are making Make simple judgements about their products and ideas against design criteria Suggest how their products could be improved		Identify the strengths and areas for development in their ideas and products Consider the views of others, including intended users, to improve their work Refer to their design criteria as they design and make Use their design criteria to evaluate their completed products	
Existing products	Start to talk about changes made during the making process Discuss how closely their finished products meet their design criteria	Know what products are, who products are for and what products are for Discuss how products work, how products are used and where products might be used Explore what materials products are made from Think about what they like and dislike about products		Know how well products have been designed and made Understand why materials have been chosen Discover what methods of construction have been used Look at how well products work and how well products achieve their purposes Reflect on how well products meet user needs and wants Know who designed and made the products and when they were made Find out where products were designed and made Reflect on whether products can be recycled or reused	
Key events and individuals				Learn about inventors, designers, engineers, chefs, and manufacturers who have developed ground-breaking products	

Skill Progression: Technical Knowledge

	Year 1	Year 2	Year 3	Year 4
Curriculum Objectives	• 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 • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from		• 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 • 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	
Vocabulary	Material, component, movement, mechanism, lever, slider, structure, freestanding, product, fabric, sewing	Mechanism, cutting, joining, wheel, axle, food, ingredient, product, characteristic	Product, technique, project, mechanical system, input, output, process, lever, linkage, pneumatics, control, strong, stiff, shell structure, frame structure	Product, project, properties, aesthetics, characteristics, fresh, cooked, pre-cooked, electrical systems, circuit, function
Making products work	Know about the simple working characteristics of materials and components- *All* Understand the correct technical vocabulary for the projects they are undertaking- *All* Learn about the movement of simple mechanisms such as levers and sliders- *Mechanical systems* Know freestanding structures can be made stronger, stiffer and more stable- *Structures* Discover that a 3-D textiles product can be assembled from two identical fabric shapes- *Textiles*	Understand the correct technical vocabulary for the projects they are undertaking- *All* Learn about the movement of simple mechanisms such as wheels and axles- *Mechanical systems* Know that food ingredients should be combined according to their sensory characteristics- *Cooking and Nutrition*	Use learning from science to help design and make products that work- *All* Understand the correct technical vocabulary for the projects they are undertaking- *All* Understand that mechanical and electrical systems have an input, process and output- *Mechanical systems* Discover how mechanical systems such as levers and linkages create movement- *Mechanical systems* Understand that materials can be combined and mixed to create more useful characteristics- *Textiles* Use a single fabric shape to make a 3D textiles product- *Textiles*	Use learning from science to design and make products that work- *All* Use learning from mathematics to help design and make products that work- *All* Understand that materials have both functional properties and aesthetic qualities- *All* Understand the correct technical vocabulary for the projects they are undertaking- *All* Explore that food ingredients can be fresh, pre-cooked and processed- *Cooking and Nutrition* Make strong, stiff frame structures- *Structures* Know that mechanical and electrical systems have an input, process and output- *Electrical Systems* Discover how simple electrical circuits and components can be used to create functional products- *Electrical Systems*

Mechanical Systems

	Foundation	Year 1	Year 2	Year 3	Year 4
Curriculum Objectives	Creating with Materials (ELG) • 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 Fine Motor Skills (ELG) • Use a range of small tools, including scissors, paint brushes and cutlery	• explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products		• understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	
Vocabulary	Tool, technique material, shape, assemble, purpose, user	Slider, lever, movement, direction, mechanism, join, combine, material, pivot, wheel	Function, wheel, axle, chassis, body, attach, material, measure, cut, evaluate	Lever, linkage, mechanism, product, prototype, fulcrum, aesthetic, interactive, purpose	
Knowledge	I know tools I can use to join materials I know techniques I can use to join materials I know ways I can alter the shape of materials I know how to assemble materials I am using I know how to create a product for a specific purpose or user I know how to explain how my product works	I know what a mechanism is and can make a simple slider I know how to identify and change the direction of movement in a sliding image I know what a lever is and can combine and join materials to make a lever mechanism I know what a pivot is and can combine and join materials to make a wheel mechanism I know how to design a sliding image and discuss which mechanism would be most appropriate I know how to work safely with a range of tools to make a sliding image	I know the functions of the different parts of a fire engine and can compare current fire engines to engines from the past I know what a wheel, axle and chassis are, can explain their use and can identify examples in products I know there are 2 main ways to attach wheels to an axle so that the mechanism is still functional I know what materials would be best to use when designing a wheel, axle, chassis and body and can explain my reasoning I know how to measure and cut dowel safely to create an axle I know how to design, make and evaluate a fire engine that includes a wheel and axle mechanism	I know how to recognise lever and linkage systems within a range of products and explain their purpose I know how to make a prototype of a moving mechanism that includes a lever and linkage I know how to make a prototype of a moving mechanism that includes multiple levers and linkages I know what a fulcrum is, can recognise it in a product and can make a model using one I know how to plan an aesthetic, interactive storybook and choose suitable mechanisms to create moving parts I know how to measure, cut and join card accurately to ensure a mechanism fits its purpose	
Outcome	*Range of products throughout the year, focused on the interests of the children*	Explorers sliding image	Fire engines	Pop up/moving books	

Structures

		Year 1	Year 2	Year 3	Year 4
Curriculum Objectives	Creating with Materials (ELG) • 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 Fine Motor Skills (ELG) • Use a range of small tools, including scissors, paint brushes and cutlery	• build structures, exploring how they can be made stronger, stiffer and more stable		• apply their understanding of how to strengthen, stiffen and reinforce more complex structures	
Vocabulary	Structure, design, join, build, junk modelling	Function, purpose, man-made, natural, stable, stiff, strength, material, base, weak, joint			Frame, shell, properties, features, reinforce, diagonal struts, protype, measure, mark, cut, join
Knowledge	I know how to stack objects to create a structure I know how to join objects together (such as Lego, Duplo, etc.) to create a structure I know how to use glue and tape to join materials together I know build a structure using junk modelling resources I know how to explain why a structure stands up and why a structure might fall over	I know the purpose of structures and can name some famous structure around the UK I know how to identify natural and man-made structures I know what is meant by stability and can identify when a structure is more or less stable than another, knowing that a structure with a flat, wide base or legs are the most stable I know what is meant by strength and stiffness and know that the shape of materials can be changed to improve this I know how the material that is used to build a structure can affect its strength, stiffness and stability I know how to create joints within structures made from folding, joining and rolling paper			I know what a frame and shell structure is and can compare their properties, giving examples of these structures across Europe I know how to identify stronger and weaker structures based on their features and shapes I know how to explore how to reinforce a beam (structure) to improve its strength I know how triangles and diagonal struts can be used to add strength and stiffness to a structure I know how to design a structure, what a prototype is and how to measure, mark, cut and join art straws to create a frame structure I know how to measure, mark, cut and join wood to create a frame structure
Outcome	*Range of products throughout the year, focused on the interests of the children*	UK Monuments			Frame structures

Textiles

		Year 1	Year 2	Year 3	Year 4
Curriculum Objectives	Creating with Materials (ELG) • 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 Fine Motor Skills (ELG) • Use a range of small tools, including scissors, paint brushes and cutlery	• 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		• 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	
Vocabulary	Hole, push, pull, thread, lace, pattern, repeat, colour, control, binca, stitch	Fabric, design, decorate, puppet, template, glue, sew, running stitch, technique, join, needle	Back stitch, thread, accurate, pin, stencil, sizing, proportion	Blanket stitch, design criteria, pattern, strong, secure, fastener, features, appeal, aesthetic	
Knowledge	I know how to notice and describe a pattern I know how to make a pattern (including repeating patterns with three or more colours) I know how to follow a line by threading I know how to thread by pushing a lace through a series of holes I know how to thread beads I know how to create a shape by threading using binca and thick thread	I know that different techniques may be used to join fabrics I know where sewing is used in everyday life I know how to create a running stitch and can explain why running stitch is used I know how to use neat and evenly spaced stitches to join fabric I know how to design a hand puppet and consider the sizing I know how to use a template (draw round onto fabric) I know how to join fabric together by using glue to add decoration to a product	I know how to create a back stitch and can explain why back stitch is used I know why it is important to use neat and evenly spaced stitches to join fabric I know how to thread a needle I know how to use a template to consider proportion I know how to cut fabric neatly and pin fabric accurately I know how to join fabric together by using sewing stitches (running or back stitch) to add decoration to a product	I know how to create a blanket stitch to join two pieces of fabric and can explain why blanket stitch is used I know how to create strong and secure stitches I know what the main type of fasteners are and can explain the benefits and disadvantages of each type of fastener I know what a pattern is and can design and use one to create a product of the correct size I know how to design and make a product based on a design criteria I know how to use a range of joining techniques and sewing stitches to add decorative features to a product	
Outcome	*Range of products throughout the year, focused on the interests of the children*	Royal hand puppet	Flags	Travel bag	

Cooking and Nutrition

		Year 1	Year 2	Year 3	Year 4
Curriculum Objectives	Creating with Materials (ELG) • 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 Fine Motor Skills (ELG) • Use a range of small tools, including scissors, paint brushes and cutlery	• use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from		• 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	
Vocabulary	Healthy, clean, sharp, safe, chop, cut, mix, cook, stir, spread, knead		Diet, balanced, healthy, unhealthy, ingredients, grow, vine, nutrients, packaging, combination, safely, hygiene	Weather, flavour, ingredients, method, recipe, measure, seasonality, region, importing, savoury	Climate, adapt, flavour, ingredients, method, recipe, measure, production, dietary requirements, technique, contamination
Knowledge	I know where some foods come from I know how to describe food using taste, smell, texture and feel I know how to stir, spread, knead and shape a range of food and ingredients I know how to work safely and hygienically I know how to think about the need for a variety of foods in a diet, identifying healthy and unhealthy choices I know how to measure and weigh food items using non-standard units (e.g. cups)		I know how to taste foods and describe their appearance, smell, taste and texture I know that fruits and vegetables grow in one of three places: on trees/vines, above the ground or below the ground I know what makes a balanced diet and can identify the 5 food groups with examples I know approximately how much of each food group I should eat each day and can find the nutritional information of a product on packaging I know how to consider and review food combinations I know that the most ideal ingredient combinations for a meal will contain foods from more than one food group I know how to prepare food safely and hygienically	I know that weather affects food growth/production I know what fruits and vegetables are grown in the UK and why some can't be grown successfully in the UK I know the seasonality of ingredients grown in the UK and can give examples of regional food produce I know that importing food impacts the environment and is one of the reasons why we should eat seasonal foods I know the process of 'farm to fork' and explain this journey for an ingredient grown in the UK I know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking to create a savoury dish I know how to use a range of cooking equipment safely	I know that each country has its own climate and that climate affects food growth I know that these climates enable different fruits and vegetables to grow more successfully I know what European countries are famous for producing, giving reasons for this and explaining why the UK imports these items I know how to design and adapt a meal for different dietary requirements or lifestyle choices I know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking and how they change the taste and texture of food I know the basic rules of food contamination
Outcome	*Range of products throughout the year, focused on the interests of the children*		Healthy sandwiches and wraps	Seasonal vegetable dish	Italian themed meal

Electrical Systems

		Year 1	Year 2	Year 3	Year 4
Curriculum Objectives				• 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	
Vocabulary					Series circuit, fault, connection, switch, push to make, push to break, toggle, battery, wire, bulb, buzzer, control, input, output, user, purpose, function, design criteria, design brief
Knowledge					I know the name of some products that are battery powered and can explain how they are suited for their intended user and purpose I know the features, components, materials and functions (e.g. how does it work?) of a range of battery powered products I know how to use and make different types of switch (e.g. push to make, push to break, toggle switch) and determine which would be useful in different products I know how to make a simple circuit with batteries and a range of different types of switches, bulbs and buzzers I know how to create a design criterion that is authentic and purposeful, and display this using annotated sketches, cross-sectional drawings and/or exploded diagrams I know how to create a product with a circuit, that includes an output and a switch, that fulfils a design brief
Outcome					Torches