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Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS Nursery (Review introduced skills throughout the year)	Demonstrating use of provision areas for junk modelling	Demonstrating making and preparing healthy snacks – cutting skills	Demonstrating the use of bookmarks and creation of bookmarks in writing/reading area	Demonstrating use of provision areas for scissor skills – play dough area/creative area	Revisit and enhance model making through junk modelling, paper art and shape.	Plan how to make an invention of your choice in the provision areas and evaluate.
EYFS Reception	Curriculum links across provision areas	Cooking and nutrition: Soup	Curriculum links across provision areas	Structures: Junk modelling	Curriculum links across provision areas	Textile: bookmarks
1	Not in focus	Cooking and nutrition: Fruit and Vegetables	Not in focus	Mechanisms: Moving story book	Not in focus	Textiles: Puppets
2	Not in focus	Cooking and nutrition: A balanced diet	Not in focus	Structures: Baby bear's chair	Not in focus	Mechanism: Moving monster
KS 1 Small Class (Follow EYFS)	Curriculum links across provision areas	Cooking and nutrition: Soup	Curriculum links across provision areas	Structures: junk modelling	Curriculum links across provision areas	Textiles: bookmarks
3	Not in focus	Cooking and nutrition: Eating Seasonally	Not in focus	Structures: Constructing a castle	Not in focus	Textiles: cushions
4	Not in focus	Cooking and nutrition: Adapting a recipe	Not in focus	Electrical systems: Torches	Not in focus	Textiles: Fastenings
Lower KS2 Small Class (Follow Yr1)	Not in focus	Cooking and nutrition: Fruit and Vegetables	Not in focus	Mechanisms: Moving story book	Not in focus	Textiles: Puppets
5	Not in focus	Structures: Bridges	Not in focus	Mechanisms Making a pop-up book	Not in focus	Electrical systems:doodle
6	Not in focus	Cooking and nutrition: Come dine with me	Not in focus	Mechanisms: Automatic toys	Not in focus	Electrical systems: steady hand game
Upper KS2 Small Class (Follow Yr3)	Not in focus	Cooking and nutrition: Eating Seasonally	Not in focus	Structures: Constructing a castle	Not in focus	Textiles: cushions

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Colour coded to show content areas: Mechanisms Textiles Electrical systems cooking and nutrition Structures

Long Term Plan- Whole School Overview of topic:

EYFS: Art, D.T and Music fall under the same ELG goal 'Expressive Art and Design'.

At Acre Hall we plan teaching and learning in our specific subjects in the afternoons, during topic weeks eg DT week. The children can access provision in both Reception classrooms. They are encouraged to participate in a daily topic session and enhancements and challenges in the provision link to that days/weeks teaching as part of the subject in focus that week. We endeavour to cover every subject each half term.

A lot of design and technology within EYFS is completed with continuous provision or as an adult led focus task, these include but are not limited to;
Junk modelling
Observation drawings including designs to aid construction, junk modelling, playdough creations.
Using simple tools e.g. knives, hammers and scissors
Building using provision equipment e.g. building blocks and crates.
Snack making
Heathy eating, cooking, baking.

At Acre Hall in Early Years we take a 'Planning in the moment approach'. This follows the children's natural interests, this is added to retrospectively throughout the year; previous examples include junk modelling with the fruit crates from snack time.

Curriculum EYFS development matters statements	Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. • Explore different materials freely, to develop their ideas about how to use them and what to make. • Develop their own ideas and then decide which materials to use to express them. • Join different materials and explore different textures. • Create closed shapes with continuous lines, and begin to use these shapes to represent objects. • Draw with increasing complexity and detail, such as representing a face with a circle and including details. • Use drawing to represent ideas like movement or loud noises. • Show different emotions in their drawings and paintings, like happiness, sadness, fear, etc. • Explore colour and colour-mixing.
Reception ELG	Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

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Books linked to teaching	• The 3 Little pigs • The most magnificent thing • If I built a house • Paper Dolls

Year One

	Autumn - Fruit and veg	Spring - Moving story book	Summer - Puppets
Lesson Key Questions:	KQ: Is it a fruit or a vegetable? KQ: Where do fruit and vegetables grow? KQ: Which type of smoothie tastes the best? KQ: Can you make a delicious fruit or vegetable smoothie?	KQ: How do we make a slider for a book? KQ: Can you design your own moving story book? KQ: How will you make your picture move? KQ: How effective was your moving story books?	KQ: How do we join fabric together? KQ: Can you design your puppet using a template? KQ: How do we join 2 pieces of fabric together? KQ: What will your end puppet look like?
Component Knowledge	L1: To name a number of fruits and vegetables. L2: To identify where plants grow and which parts we eat. L3: To taste and compare fruit and vegetables. I can suggest what fruits and/or vegetables are in a drink. L4: To select ingredients for a recipe. To apply food preparation skills to a recipe.	L1: To explore making mechanisms L2: To design a moving storybook. L3: To construct a moving picture. L4: To evaluate my finished product.	L1: To join fabrics together using different methods. L2: To use a template to create my design. L3: To join two fabrics together accurately. L4: To embellish my design using joining methods.

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NC Links	Use basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from. Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. 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.	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. 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. Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	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 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 their ideas and products against design criteria.
Cross curricular Links	Science- Plants PSHCE – It's my body Science- Animals including Humans	Geography- Let's got to the jungle Science- Animals including Humans PSHCE - Aiming High	PSHCE - Aiming High History- Why is remembrance day important? Science- Plants Science- Materials
Revisit and review opportunities	Y1 - Food (Fruit and Vegetables) Y2 - Food (A balanced diet) Y3 - Food (Eating Seasonally) Y4 - Food (Adapting a recipe) Y6 - Food (Come dine with me)	Y1: Moving Story Book Y2 - Moving Monsters Y5- Making a pop-up book.	Y1- Textiles (Puppets) Y3 -Textiles (Cushions) Y4- Textiles (Fastenings)

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Curriculum Driver Links					
	Healthy Advocates - identify the healthy food groups	**Adventurers & Explorers -** Identify famous moving model designers.		**Clear Communicators** - Evaluate the effectiveness of their design product **Global Citizens -** Identify the use of turbines as a power source.	
Vocabulary	Fruit, seed, root, smoothie, carton, flavour, vegetable, leaf Steam, healthy, design, peel slice	Sliders, adapt, design, model, assemble, mechanism design, criteria, input, template test		Decorate, fabric, model, design glue, hand puppet, staple template	

Year Two

	Autumn – A balanced diet	**Spring - Baby bear's chair**	**Summer - Moving monster**
Lesson Key Questions:	KQ: What is a balanced diet? KQ: What are the best combinations when tasting? KQ: What would you include in your wrap? KQ: Can you make a healthy wrap?	KQ: What is a stable structure? KQ: How does the structure effect its strength? KQ: Can you make a structure of a chair? KQ: How effective was your chair?	KQ: How do different objects move? KQ: Can you make the objects move? KQ: What will your monster look like? KQ: Can you make a moving monster?

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Component Knowledge	L1: To recognise foods and their food groups. L2: To identify the balance of food groups in a meal. L3: To identify an appropriate piece of equipment to prepare a given food. L3: To select balanced combinations of ingredients. L4: To design based on criteria. L5: To evaluate a dish based on design criteria.	L1: To explore the concept and features of structures and the stability of different shapes. L2: To understand that the shape of the structure affects its strength. L3: To make a structure according to design criteria. L4: To produce a finished structure and evaluate its strength, stiffness and stability.	L1: To look at objects and understand how they move. L2: To look at objects and understand how they move. L3: To explore different design options. L4: To make a moving monster
NC Links	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Explore and evaluate a range of existing products. Use basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.	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. 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 their ideas and products against design criteria. Build structures, exploring how they can be made stronger, stiffer and more stable	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. 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. Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Explore and use mechanisms [for example, levers, sliders, wheels and axles, in their products.

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Cross curricular Links	Science- Animals including Humans	ENG- Story writing/ Character descriptions Science- Materials Art – Super sculptures	Science- Materials
Revisit and review opportunities	Y1- Food (Fruit and Vegetables) Y2 -Food (A balanced diet) Y3 - Food (Eating Seasonally) Y4 - Food (Adapting a recipe) Y6 -Food (Come dine with me)	Y2 - Structures (Baby bear's chair) Y3 - Structures (Constructing a castle) Y5 - Structures (Bridges)	Y1 - Moving Story Book Y2 - Moving Monsters Y5 - Making a pop-up book.
Curriculum Driver Links	    		
	Aspirational Learners- Identifying the positive and negatives aspects of their designs. **Adventurers & Explorers-** identifying famous textile designers	**Healthy Advocates-** Looking at healthy and balanced diets	**Global Citizens-**Identifying where in the World are famous Ferris wheels.
Vocabulary	balanced diet, carbohydrate, fruit, oils, protein, balance, dairy, ingredients, sugar, vegetable, design criteria	design criteria, natural, structure, shape, man-made, properties, stable, model, test	axle, input, mechanical, pivot, design, criteria, linkage, output, wheel

Year Three

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	Autumn - Eating seasonally	Spring - Constructing a castle	Summer - Cushions
Lesson Key Questions:	KQ: How does climate effect our food? KQ: Which foods growth in the UK and when? KQ: Can you create a healthy recipe? KQ: Can you follow the recipe to make a tart?	KQ: Can you create a stable structure? KQ: Can you design a castle? KQ: Can you construct a 3D net? KQ: Can you construct a 3D castle?	KQ: What is the cross stitch? KQ: What will your cushion look like? KQ: How will you decorate your cushion? KQ: What techniques will we use to assemble your cushion?
Component Knowledge	L1: To explain why food comes from different places around the world. L2: To explain the benefits of seasonal foods. L3: To develop cutting and peeling skills. L4: To evaluate seasonal ingredients. L5: To design a mock-up using criteria.	L1: To recognise how multiple shapes (2D and 3D) are combined to form a strong and stable structure. L2: To design a castle. L3: To construct 3D nets. L4: To construct and evaluate my final product.	L1: To learn how to sew cross-stitch and appliqué. L2: To design a product and its template. L3: To decorate fabric using appliqué and cross-stitch. L4: To assemble and complete a cushion.
NC History Links	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. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Understand and apply principles of a healthy and varied diet. Prepare and cook variety of predominantly savory dishes using a range of cooking techniques. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	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. 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	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. 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

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		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. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	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.
Cross curricular Links	Science - Animals including Humans Science - Living things and their habitats PSHCE – It's My body Geog - The UK Geog - Land use	Maths – 2D/ 3D shapes. Maths- Creating a net Art- Famous Buildings Geog- The UK	Maths - Measuring/Length/ Perimeter, 3D shapes Science - States of Matter- Solids
Revisit and review opportunities	Y1 - Food (Fruit and Vegetables) Y2 -Food (A balanced diet) Y3 - (Eating Seasonally) Y6 - Food (Come dine with me)	Y1 - Structures – moving story book Y2 - Structures (Baby bear's chair) Y3 - Structures (Constructing a castle) Y5 - Structures (Bridges)	Y1 - Textiles (Puppets) Y3 - Textiles (Cushions) Y4- Textiles (Fastenings)
Curriculum Driver Links					

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	Adventurers & Explorers- Identifying famous textile designers. **Aspirational Learners-** Identifying the positive and negatives aspects of their designs.	**Global Citizens** - Identify famous castles from around the World **Adventurers & Explorers** - Identifying civilizations that would have visited famous castle.	**Global Citizens-**Understanding the effects of climate change. **Healthy Advocates-** Looking at healthy food choices. **Clear Communicators-** Identifying why they have made their food choices when creating their recipe.
Vocabulary	Climate, imported, natural, reared, seasonal, diet, ingredients, processed, recipe, seasons, sugar	2D, castle, key features, scoring, stable, strong, 3D, design, net, shape, stiff, structure, table	Applique, design, fabric, running stitch, cross-stitch, equipment, patch, thread, texture, knot

Year Four

	Autumn – Adapting a recipe	**Spring – Electrical Torches**	**Summer - Fastenings**
Lesson Key Questions:	KQ: Can I follow a recipe? KQ: Can I improve a recipe? KQ: Can I plan and make a biscuit within a budget? KQ: Can I design a biscuit that hits a design brief?	KQ: How does an electrical product work? KQ: What makes a good torch? KQ: Can I design a torch to a criteria? KQ: How successful is your torch?	KQ: What types of fastenings are there? How do they work? KQ: What will my book sleeve look like? KQ: Can I make a paper template? KQ: Can I assemble a book jacket that is fit for purpose?
Component Knowledge	L1: To evaluate existing biscuit products. L2: To prepare and cook a dish. L3: To select ingredients and follow a budget. L4: To take inspiration from existing products. L5: To make and test a prototype biscuit. L6: To evaluate a final product.	L1: To learn about electrical items and how they work. L2: To analyse and evaluate electrical products. L3: To design a product to fit a set of specific user needs. L4: To make and evaluate a torch.	L1: To explain the advantages and disadvantages of different types of fastening type. L2: To design a product to meet design criteria. L3: To make and test a paper template. L4: To assemble a book jacket.

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NC History Links	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. 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. 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 and apply principles of a healthy and varied diet. Prepare and cook variety of predominantly savory dishes using a range of cooking techniques. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	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. 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. 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. Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].	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. 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. 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.

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Cross curricular Links	Maths Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) Add and subtract amounts of money to give change, using both £ and p in practical contexts Put together a cuboid net for packaging. Budgeting. PSHE Basic food Hygiene.	Science Y4, Y6 Identify common appliances that run on electricity. 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. Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. Recognise some common conductors and insulators, and associate metals with being good conductors. Y3 SPR1- SCI (Light) Y6 SPR1- SCI(Light) History A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066.	Maths- Measuring their designs in cm and mm. Isometric drawings. Art- Taking photographs of the fastenings that they find.
Revisit and review opportunities	Y1- Food (Fruit and Vegetables) Y2 -Food (A balanced diet) Y3 - Food (Eating Seasonally) Y5 - Food (What could be healthier?) Y6 -Food (Come dine with me)	Y4 - Electrical systems (Torches) Y5 - Electrical systems (Doodlers) Y6- Electrical systems (Steady hand game)	Y1 - Textiles (Puppets)) Y3 -Textiles (Cushions) Y4 - Textiles (Fastenings)
Curriculum Driver Links	    		
	Healthy Advocates- following hygiene rules when cooking. **Global Citizens-**	**Aspirational Learners**- Design and develop their own products. Looking at STEM careers and engineering.	**Aspirational Learners-** Looking at textile design and careers.

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	Working with a budget for ingredients. **Clear Communicators** Put forward a design and justify design to a panel.	**Aspirational Learners** Understand how key events and individuals in design and technology have helped shape the world.	
Vocabulary	design criteria, research, texture, innovative, aesthetic, measure, cross-contamination, diet, processed, packaging	battery, bulb, buzzer, conductor, circuit, circuit diagram, electricity, insulator, series circuit, switch, component, design, design criteria, diagram, evaluation, LED, model, shape, target audience, input, recyclable, theme, aesthetics, assemble, equipment, ingredients, packaging, properties, sketch ,test	criteria, fabric, fastening, fix, mock-up, stitch, template

Year Five

	Autumn – Bridges	**Spring - Making a Pop Up book**	**Summer - Doodlers**
Lesson Key Questions:	KQ: How does the shape of a bridge affect its strength? KQ: Why are triangles so important to bridges? KQ: What is the best material for my model bridge? KQ: How successful is my bridge?	KQ: Can I design a pop-up book page? KQ: Can I successfully create the structure of my book? KQ: What are layers and spacers and why do I need them in my book? KQ: Can I write and illustrate a successful story?	**KQ: How are motors used in electrical products?** **KQ: Can I investigate an existing product to determine the factors that affect the product's form and function?** **KQ: Can I develop a unique product?** **KQ: Can I develop a DIY kit?**
Component Knowledge	L1: To explore how to reinforce a beam (structure) to improve its strength. L2: To build a spaghetti truss bridge. L3: To build a wooden truss bridge. L4: To complete, reinforce and evaluate my truss bridge.	L1: To design a pop-up book. L2: To follow my design brief to make my pop-up book. L3: To use layers and spacers to cover the working of mechanisms. L4: To create a high-quality product suitable for a target user.	L1: To understand how motors are used in electrical products. L2: To investigate an existing product to determine the factors that affect the product's form and function. L3: To apply the findings from research to develop a unique product. L4: To develop a DIY kit for another individual to assemble their product.

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NC History Links	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. 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. 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.	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. 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. 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.	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] 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. 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. Investigate and analyse a range of existing products.

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			Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
Cross curricular Links	Geography – Landmarks Art – Landscapes	Art -Illustrate their own books. English -Write a successful story for their pop-up book. Think about characters and settings.	Science- Y4/Y6 Identify common appliances that run on electricity. 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. Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. Recognise some common conductors and insulators, and associate metals with being good conductors English- Instruction writing, chn create their DIY kit with instructions.

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Revisit and review opportunities	**Y1 – Junk modelling** **Y2 – Baby bear's chair** **Y3 – Constructing a castle**	Y1 – Moving story book Y2 – Moving Monsters Y5 – Making a Pop Up book Y6 – Automatic toys	Y4 – D.T - Electrical systems (Torches) Y5 – D.T Electrical systems (Doodlers) Y6- D.T -Electrical systems (Steady hand game) Y4 - SCI Electricity. Y6- SCI Electricity.
Curriculum Driver Links	    		
	Aspirational Learners- Design and develop their own products. Looking at STEM careers and engineering.		Clear communicators- Plan and create a book aimed at Y1 children. Read their book to Y1 children.
Vocabulary	Construct, join, assemble, sturdy, balance	design, input, motion, mechanism, criteria, research, reinforce model	circuit component, configuration, current, develop, DIY, investigate, motor, motorised, problem solve, product analysis, series circuit, stable, target user.

Year Six-

	Autumn	**Spring**	**Summer**
Lesson Key Questions:	KQ 1- Can I research and design a three-course meal? KQ 2 - Can I prepare a starter using a recipe? KQ 3 - Can I prepare a main course using a recipe? KQ 4 - Can I prepare a dessert using a recipe?	KQ 1- Can I prepare wood by measuring, marking and cutting? KQ 2 - Can I use an exploded-diagram to assemble the automata frame? KQ 3 - What is the relationship between cam profiles and follower movement? KQ 4 - How successful is my automata?	KQ 1 -What makes a successful steady hand game? KQ 2 – Can you design a steady hand game? KQ 3- Can I construct a solid base? KQ 4 -Can I make and test my circuit?

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Component Knowledge	L1: To explain the use of complementary flavours. L2: To research and design a three-course meal. L3: To explain recipe choices. L4: To apply culinary skills and knowledge.	L1: To prepare wood for assembly by measuring, marking and cutting each piece. L2: To assemble the automata frame components and supports with the help of an exploded diagram. L3: To explore the relationship between cam profiles and follower movement to inform a design decision. L4: To apply the housing and finishing touches to the automata frame.	L1: To research and analyse a range of children's toys. L2: To design a steady hand game. L3: To construct a stable base. L4: To assemble electronics and complete their electronic game.
NC History Links	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. Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Understand how key events and individuals in design and technology have helped shape the world. Understand and apply principles of a healthy and varied diet. Prepare and cook variety of predominantly savory dishes using a range of cooking techniques. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	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. Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. 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.	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. 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. Investigate and analyse a range of existing products.

Acre Hall Primary School- DT Long Term Curriculum Plan

		Understand how key events and individuals in design and technology have helped shape the world. Understand and use mechanisms in their products [for example, gears, pulleys, cams, levers and linkages]	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
Cross curricular Links	Science Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Y1 - Animals inc Humans/Plants Y2 - Animals inc Humans/Plants Y3- Living things and their habitats. Y4 - Living things and their habitats Y4 -Animals inc Humans Y5 - Living things and their habitats.(life cycles, gestation) Y5 - Animals inc Humans PSHE/Science The principles of planning and preparing a range of healthy meals. Health and safety when preparing food.	History -Victorian Toys Maths -Measuring different lengths of wood for the frame. Science -Forces of the cams. Y1 - Everyday Materials Y2 – Materials Y3 - Forces and Magnets Y5 - Forces.	Science Y6 - Use and recognise symbols when representing a simple circuit diagram. Compare and give reasons for variations in how components function, including the brightness of the bulbs, the loudness of buzzers and the on/off position of switches. Maths - Recognise, describe and build simple 3-D shapes. (All year groups) Computing- Recapping rules for safe online research. (All year groups)

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<table>
<tr><td>Revisit and review opportunities</td><td colspan="2">Y1 - Food (Fruit and Vegetables)
Y2 -Food (A balanced diet)
Y3 - Food (Eating Seasonally)
Y4 - Food (Adapting a recipe)
Y6 SUM1-Food (Come dine with me)</td><td colspan="2">Y1 - DT Moving book (pull/push)
Y2 - DT (Moving monsters- input+ output)
Y5 - DT (pop-up book, input/output)
Y6 - DT (CAMS)</td><td>Y4 - Electrical systems (Torches)
Y5 - Electrical systems (Doodlers)
Y6-Electrical systems (Steady hand game)
Y4 SPR 2- SCI electricity.
Y6 AUT 2- SCI electricity.</td></tr>
<tr><td rowspan="2">Curriculum Driver Links</td><td> 
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<tr><td colspan="2">Aspirational Learners
Understand how key events and individuals in design and technology have helped shape the world.</td><td colspan="2">Healthy Advocates
Learning about the health and safety of using a saw and a drill.
Cooking nutritious meals</td><td>Global citizens
Learning about the sustainability of products and their product lifecycle.</td></tr>
<tr><td>Vocabulary</td><td>equipment
flavours
ingredients
method
research
recipe
bridge method
cookbook
cross-contamination
farm to fork
preparation
storyboard</td><td colspan="2">accurate, assembly, diagram, automata, axle bench hook, cam, clamp, component, cutting list, diagram, dowel, drill bits, exploded-diagram, finish, follower, frame, function, hand drill, jelutong, linkage, mark out, measure, mechanism, model, research, right-angle, set square, tenon saw.</td><td>Assemble, battery, battery pack, benefit, bulb, bulb holder, buzzer, circuit, circuit symbol, component, conductor, copper, design, design criteria, evaluation, fine motor skills, fit for purpose, form, function, gross motor skills, insulator, LED, user</td></tr>
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