



Holywell Primary School

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we are a learning community with the spirit to succeed

Subject Overview DT 2020-2021

Year group	Autumn 1	Autumn 2 (Innovation and Enterprise)	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	Personal, Social and Emotional Development		<ul style="list-style-type: none"> Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them. 			
	Physical Development		<ul style="list-style-type: none"> Use large-muscle movements to wave flags and streamers, paint and make marks. Choose the right resources to carry out their own plan. Use one-handed tools and equipment, for example, making snips in paper with scissors. 			
	Understanding the World		<ul style="list-style-type: none"> Explore how things work. 			
	Expressive Arts and Design		<ul style="list-style-type: none"> 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, in order 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. Create closed shapes with continuous lines, and begin to use these shapes to represent objects. 			
Reception	Physical Development		<ul style="list-style-type: none"> Progress towards a more fluent style of moving, with developing control and grace. Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. 			
	Expressive Arts and Design		<ul style="list-style-type: none"> Explore, use and refine a variety of artistic effects to express their ideas and feelings. Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and skills. 			

ELG



Physical Development	Fine Motor Skills	<ul style="list-style-type: none"> • Use a range of small tools, including scissors, paintbrushes and cutlery.
Expressive Arts and Design	Creating with Materials	<ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Share their creations, explaining the process they have used.

<p>Year 1</p>	<p>DT aspect- Mechanisms (Sliders and levers)</p> <p>Project: Design, make and evaluate a group storybook for your friends based on a traditional tale</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Early experiences of working with paper and card to make simple flaps and hinges. <p>Designing</p> <ul style="list-style-type: none"> • Generate ideas based on simple design criteria and their own experiences, explaining what they could make. <p>Making</p> <ul style="list-style-type: none"> • Plan by suggesting what to do next. • Select and use tools, explaining their choices, to cut, shape and join paper and card. <p>Evaluating</p> <ul style="list-style-type: none"> • Explore a range of existing books and everyday products that use simple sliders and levers. • Explore and use sliders and levers. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand that different mechanisms produce different 	<p>DT aspect- Structures (Freestanding structures)</p> <p>Project: Design, make and evaluate a free standing structure for the Christmas fayre</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Experience of using construction kits to build walls, towers and frameworks. • Experience of using of basic tools e.g. scissors or hole punches with construction materials e.g. plastic, card. <p>Designing</p> <ul style="list-style-type: none"> • Generate ideas based on simple design criteria and their own Experiences, explaining what they could make. <p>Making</p> <ul style="list-style-type: none"> • Plan by suggesting what to do next. • Select and use tools, skills and techniques, explaining their choices. <p>Evaluating</p> <ul style="list-style-type: none"> • Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to make 	<p>DT aspect- Food (Preparing fruit and vegetables)</p> <p>Project: Design, make and evaluate fruit kebabs for your peers at a school.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Experience of common fruit and vegetables, undertaking sensory activities i.e. appearance taste and smell. <p>Designing</p> <ul style="list-style-type: none"> • Design appealing products for a particular user based on simple design criteria. <p>Making</p> <ul style="list-style-type: none"> • Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely. <p>Evaluating</p> <ul style="list-style-type: none"> • Taste and evaluate a range of fruit and vegetables to determine the intended user's preferences. 	<p>DT aspect- Textiles (Templates and joining techniques)</p> <p>Project: Design, make and evaluate a soft bag to carry soft toys at story time.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Explored and used different fabrics. • Cut and joined fabrics with simple techniques. <p>Designing</p> <ul style="list-style-type: none"> • Design a functional and appealing product for a chosen user and purpose based on simple design criteria. <p>Making</p> <ul style="list-style-type: none"> • Select from and use a range of tools and equipment to perform practical tasks such as marking out, cutting, joining and finishing. <p>Evaluating</p> <ul style="list-style-type: none"> • Explore and evaluate a range 	<p>DT aspect- Wheels and Axles (Mechanisms)</p> <p>Project: Design, make and evaluate a shopping trolley for a family member to make shopping easier.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Assembled vehicles with moving wheels using construction kits. • Explore moving vehicles through play. <p>Designing</p> <ul style="list-style-type: none"> • Generate initial ideas and simple design criteria through talking and using own experiences. <p>Making</p> <ul style="list-style-type: none"> • Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing. 	
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	types of movement.	freestanding structures stronger, stiffer and more stable.	Technical knowledge and understanding <ul style="list-style-type: none"> Understand where a range of fruit and vegetables come from e.g. farmed or grown at home. Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of <i>The eatwell plate</i>. 	of existing textile products relevant to the project being undertaken. Technical knowledge and understanding <ul style="list-style-type: none"> Understand how simple 3-D textile products are made, using a template to create two identical shapes. Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. 	Evaluating <ul style="list-style-type: none"> Explore and evaluate a range of products with wheels and axles. Technical knowledge and understanding <ul style="list-style-type: none"> Explore and use wheels, axles and axle holders. Distinguish between fixed and freely moving axles. 	
Year 2	DT aspect- Mechanisms (Sliders and levers) <p>Project: Design, make and evaluate a greeting card for your friend's birthday.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> Experience of simple cutting, shaping and joining skills using scissors, glue, paper fasteners and masking tape. <p>Designing</p> <ul style="list-style-type: none"> Develop, model and communicate their ideas through drawings and mock-ups with card and paper. <p>Making</p> <p>Select and use tools, explaining their</p>	DT aspect- Structures (Freestanding structures) <p>Project: Design, make and evaluate a free standing structure for the Christmas fayre</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> Experience of different methods of joining card and paper. <p>Designing</p> <ul style="list-style-type: none"> Develop, model and communicate their ideas through talking, mock-ups and drawings. <p>Making</p> <ul style="list-style-type: none"> Select new and reclaimed materials and construction kits to build their structures. Use simple finishing techniques suitable for 	DT aspect- Food (Preparing fruit and vegetables) <p>Project: Design, make and evaluate a fruit salad for your peers in school.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> Experience of cutting soft fruit and vegetables using appropriate utensils. <p>Designing</p> <ul style="list-style-type: none"> Generate initial ideas and design criteria through investigating a variety of fruit and vegetables. Communicate these ideas 	DT aspect- Textiles (Templates and joining techniques) <p>Project: Design, make and evaluate a glove puppet for younger children to play with.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> Thought about the user and purpose of products. <p>Designing</p> <ul style="list-style-type: none"> Generate, develop, model and communicate their ideas as appropriate through talking, drawing, templates, mock- 	DT aspect- Wheels and Axles (Mechanisms) <p>Project: Design, make and evaluate an emergency service vehicle for people who help us for work.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> Assembled vehicles with moving wheels using construction kits. Explore moving vehicles through play. <p>Designing</p> <ul style="list-style-type: none"> Generate initial ideas and simple design criteria 	

	<p>choices, to cut, shape and join paper and card.</p> <ul style="list-style-type: none"> • Use simple finishing techniques suitable for the product they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand that different mechanisms produce different types of movement. • Know and use technical vocabulary relevant to the project. 	<p>the structure they are creating.</p> <p>Evaluating</p> <ul style="list-style-type: none"> • Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know and use technical vocabulary relevant to the project. 	<p>through talk and drawings.</p> <p>Making</p> <ul style="list-style-type: none"> • Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product. <p>Evaluating</p> <ul style="list-style-type: none"> • Evaluate ideas and finished products against design criteria, including intended user and purpose. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of <i>The eatwell plate</i>. • Know and use technical and sensory vocabulary relevant to the project. 	<p>ups and information and communication technology.</p> <p>Making</p> <ul style="list-style-type: none"> • Select from and use textiles according to their characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> • Explore and evaluate a range of existing textile products relevant to the project being undertaken. <p>Evaluating</p> <ul style="list-style-type: none"> • Evaluate their ideas throughout and their final products against original design criteria. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons. • Know and use technical vocabulary relevant to the project. 	<p>through talking and using own experiences.</p> <p>Making</p> <ul style="list-style-type: none"> • Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing. <p>Evaluating</p> <ul style="list-style-type: none"> • Explore and evaluate a range of products with wheels and axles. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Explore and use wheels, axles and axle holders. 	
Year 3	<p>DT aspect- Textiles (2D shapes to 3D products)</p> <p>Project: Design, make and evaluate a purse or wallet for an adult.</p>	<p>DT aspect- Food (Healthy and Varied diet)</p> <p>Project: Design, make and evaluate Christmas related cooked good for innovation and enterprise.</p>	<p>DT aspect- Mechanical systems (Levers and Linkages)</p> <p>Project: Design, make and evaluate a poster to inform older children about chosen topic</p>	<p>DT aspect- Structures (Shell Structures)</p> <p>Project: Design, make and evaluate a gift box for a friend.</p>	<p>DT aspect- Electrical systems (Simple circuits and switches)</p> <p>Project: Design, make and evaluate a noise making toy for younger children</p>	

<p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Have joined fabric in simple ways by gluing and stitching. <p>Designing</p> <ul style="list-style-type: none"> • Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s. <p>Making</p> <ul style="list-style-type: none"> • Plan the main stages of making. • Select and use a range of appropriate tools with some accuracy e.g. cutting, joining and finishing. <p>Evaluating</p> <ul style="list-style-type: none"> • Investigate a range of 3-D textile products relevant to the project. • Test their product against the original design criteria and with the intended user. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to strengthen, stiffen and reinforce existing fabrics. • Understand how to securely join two pieces of fabric together. 	<p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Know some ways to prepare ingredients safely and hygienically. <p>Designing</p> <ul style="list-style-type: none"> • Generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose. . <p>Evaluating</p> <ul style="list-style-type: none"> • Carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to use appropriate equipment and utensils to prepare and combine food. 	<p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Explored and used mechanisms such as flaps, sliders and levers. <p>Designing</p> <ul style="list-style-type: none"> • Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user. <p>Making</p> <ul style="list-style-type: none"> • Order the main stages of making. <p>Evaluating</p> <ul style="list-style-type: none"> • Investigate and analyse books and, where available, other products with lever and linkage mechanisms. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand and use lever and linkage mechanisms. 	<p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Experience of using different joining, cutting and finishing techniques with paper and card. <p>Designing</p> <ul style="list-style-type: none"> • Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product. <p>Making</p> <ul style="list-style-type: none"> • Order the main stages of making. • Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. <p>Evaluating</p> <ul style="list-style-type: none"> • Investigate and evaluate a range of existing shell structures including the materials, components and techniques that have been used. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Develop and use knowledge of how to construct strong, stiff shell structures. 	<p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Constructed a simple series electrical circuit in science, using bulbs, switches and buzzers. and glue. <p>Designing</p> <ul style="list-style-type: none"> • Gather information about needs and wants, and develop design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups. <p>Making</p> <ul style="list-style-type: none"> • Order the main stages of making. • Select from and use tools and equipment to cut, shape, join and finish with some accuracy. <p>Evaluating</p> <ul style="list-style-type: none"> • Investigate and analyse a range of existing battery-powered products. in their work. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand and use electrical systems in their products, such as series 	
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					circuits incorporating switches, bulbs and buzzers.	
Year 4	<p>DT aspect- Textiles (2D shapes to 3D products)</p> <p>Project: Design, make and evaluate a pencil case for yourself.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Have used simple patterns and templates for marking out. • Have evaluated a range of textile products. <p>Designing</p> <ul style="list-style-type: none"> • Produce annotated sketches, prototypes, final product sketches and pattern pieces. <p>Making</p> <ul style="list-style-type: none"> • Select fabrics and fastenings according to their functional characteristics e.g. strength, and aesthetic qualities e.g. pattern. <p>Evaluating</p> <ul style="list-style-type: none"> • Take into account others' views. • Understand how a key event/individual has influenced the development of the chosen product and/or fabric. <p>Technical knowledge and</p>	<p>DT aspect- Food (Healthy and Varied diet)</p> <p>Project: Design, make and evaluate Christmas related cooked good for innovation and enterprise.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Have some basic knowledge and understanding about healthy eating and <i>The eatwell plate</i>. • Have used some equipment and utensils and prepared and combined ingredients to make a product. <p>Designing</p> <ul style="list-style-type: none"> • Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Select and use appropriate utensils and equipment to prepare and combine ingredients. • Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics. 	<p>DT aspect- Mechanical systems (Levers and Linkages)</p> <p>Project: Design, make and evaluate a storybook for your friends.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Gained experience of basic cutting, joining and finishing techniques with paper and card. <p>Designing</p> <ul style="list-style-type: none"> • Use annotated sketches and prototypes to develop, model and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Select from and use appropriate tools with some accuracy to cut, shape and join paper and card. • Select from and use finishing techniques suitable for the product they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • Evaluate their own products and ideas against criteria and user needs, as they 	<p>DT aspect- Structures (Shell Structures)</p> <p>Project: Design, make and evaluate a party box to organise your birthday party.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • A basic understanding of 2-D and 3-D shapes in mathematics and the physical properties and everyday uses of materials in science. <p>Designing</p> <ul style="list-style-type: none"> • Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Explain their choice of materials according to functional properties and aesthetic qualities. • Use finishing techniques suitable for the 	<p>DT aspect- Electrical systems (Simple circuits and switches)</p> <p>Project: Design, make and evaluate reading lamp for yourself.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Cut and joined a variety of construction materials, such as wood, card, plastic, reclaimed materials and glue. <p>Designing</p> <ul style="list-style-type: none"> • Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams. <p>Making</p> <ul style="list-style-type: none"> • Select from and use materials and components, including construction materials and electrical components according to 	

	<p>understanding</p> <ul style="list-style-type: none"> Understand the need for patterns and seam allowances. Know and use technical vocabulary relevant to the project. 	<p>Evaluating</p> <ul style="list-style-type: none"> Evaluate the ongoing work and the final product with reference to the design criteria and the views of others. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. Know and use relevant technical 	<p>design and make.</p> <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> Distinguish between fixed and loose pivots. Know and use technical vocabulary relevant to the project. 	<p>product they are creating.</p> <p>Evaluating</p> <ul style="list-style-type: none"> Test and evaluate their own products against design criteria and the intended user and purpose. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. Know and use technical vocabulary relevant to the project. 	<p>their functional properties and aesthetic qualities.</p> <p>Evaluating</p> <ul style="list-style-type: none"> Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> Apply their understanding of computing to program and control their products. Know and use technical vocabulary relevant to the project. 	
Year 5	<p>DT aspect- Food (Celebrating culture and diversity)</p> <p>Project: Design, make and evaluate healthy mini pizzas for yourself.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> Have knowledge and understanding about food hygiene, nutrition, healthy 	<p>DT aspect- Textiles (Combining different fabric shapes)</p> <p>Project: Design, make and evaluate a Christmas related product for innovation and enterprise.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> Experience of basic stitching, joining textiles and finishing techniques. 	<p>DT aspect- Structures (Frame structures)</p> <p>Project: Design, make and evaluate a playhouse for younger children.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> Experience of using measuring, marking out, cutting, joining, 	<p>DT aspect- Electrical systems (Complex switches and circuits)</p> <p>Project: Design, make and evaluate an alarm for the school shed.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> Understanding of the essential characteristics of a series 	<p>DT aspect- Mechanical system (Pulleys or gears)</p> <p>Project: Design, make and evaluate a ferrous wheel for entertainment purposes.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> Experience of axles, axle holders and wheels that are 	

eating and a varied diet.

Designing

- Generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification.

Making

- Write a step-by-step recipe, including a list of ingredients, equipment and utensils

Evaluating

- Carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/chart s such as star diagrams.

Technical knowledge and understanding

- Know how to use utensils and equipment including heat sources to prepare and cook food.

Designing

- Generate innovative ideas by carrying out research including surveys, interviews and questionnaires.

Making

- Produce detailed lists of equipment and fabrics relevant to their tasks.

Evaluating

- Investigate and analyse textile products linked to their final product.
- Compare the final product to the original design specification.

Technical knowledge and understanding

- A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics.

shaping and finishing techniques with construction materials.

Designing

- Carry out research into user needs and existing products, using surveys, interviews, questionnaires and web-based resources.

Making

- Formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used.

Evaluating

- Investigate and evaluate a range of existing frame structures.

Technical knowledge and understanding

- Understand how to strengthen, stiffen and reinforce 3-D frameworks.

circuit and experience of creating a battery-powered, functional, electrical product.

Designing

- Use research to develop a design specification for a functional product that responds automatically to changes in the environment.

Take account of constraints including time, resources and cost.

Making

- Formulate a step-by-step plan to guide making, listing tools, equipment, materials and components.

Evaluating

- Continually evaluate and modify the working features of the product to match the initial design specification.

Technical knowledge and understanding

- Understand and use electrical systems in their products.

fixed or free moving.

- Basic understanding of electrical circuits, simple switches and components. .

Designing

- Generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources.

Making

- Produce detailed lists of tools, equipment and materials.

Formulate step-by-step plans and, if appropriate, allocate tasks within a team.

Evaluating

- Compare the final product to the original design specification.

- Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.

Technical knowledge and understanding

- Understand that mechanical and electrical systems have an input, process and an

					output.	
Year 6	<p>DT aspect- Food (Celebrating culture and diversity)</p> <p>Project: Design, make and evaluate savoury scones for older people.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Be able to use appropriate equipment and utensils, and apply a range of techniques for measuring out, preparing and combining ingredients. <p>Designing</p> <ul style="list-style-type: none"> • Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose. • Use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients. • Make, decorate and present the food product appropriately for 	<p>DT aspect- Textiles (Combining different fabric shapes)</p> <p>Project: Design, make and evaluate a Christmas related object for innovation and enterprise.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Experience of making and using simple pattern pieces. <p>Designing</p> <ul style="list-style-type: none"> • Develop, model and communicate ideas through talking, drawing, templates, mock-ups and prototypes and, where appropriate, computer-aided design. • Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. <p>Making</p> <ul style="list-style-type: none"> • Formulate step-by-step plans and, if appropriate, allocate tasks within a team. • Select from and use a range of tools and equipment to make products that are accurately assembled and well finished. <p>Evaluating</p> <ul style="list-style-type: none"> • Test products with intended user and 	<p>DT aspect- Structures (Frame structures)</p> <p>Project: Design, make and evaluate a bus shelter for the local community.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Basic understanding of what structures are and how they can be made stronger, stiffer and more stable. <p>Designing</p> <ul style="list-style-type: none"> • Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost. • Generate, develop and model innovative ideas, through discussion, prototypes and annotated sketches. <p>Making</p> <ul style="list-style-type: none"> • Competently select from and use appropriate tools to accurately measure, mark out, cut, shape and join 	<p>DT aspect- Structures (Frame structures)</p> <p>Project: Design, make and evaluate a security lighting system for the school.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Initial experience of using computer control software and an interface box or a standalone box, e.g. writing and modifying a program to make a light flash on and off. <p>Designing</p> <ul style="list-style-type: none"> • Generate and develop innovative ideas and share and clarify these through discussion. • Communicate ideas through annotated sketches, pictorial representations of electrical circuits or circuit diagrams. <p>Making</p> <ul style="list-style-type: none"> • Create and modify a computer control program to enable an electrical 	<p>DT aspect- Mechanical system (Pulleys or gears)</p> <p>Project: Design, make and evaluate a controllable toy vehicle for yourself.</p> <p>Key Learning:</p> <p>Prior learning</p> <ul style="list-style-type: none"> • Experience of cutting and joining techniques with a range of materials including card, plastic and wood. • An understanding of how to strengthen and stiffen structures. <p>Designing</p> <ul style="list-style-type: none"> • Develop a simple design specification to guide their thinking. • Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. <p>Making</p> <ul style="list-style-type: none"> • Select from 	

the intended user and purpose.

Evaluating

- Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements.
- Understand how key chefs have influenced eating habits to promote varied and healthy diets.

Technical knowledge and understanding

- Understand about seasonality in relation to food products and the source of different food products.
- Know and use relevant technical and sensory vocabulary.

critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.

- Consider the views of others to improve their work.

Technical knowledge and understanding

- Fabrics can be strengthened, stiffened and reinforced where appropriate.

construction materials to make frameworks.

- Use finishing and decorative techniques suitable for the product they are designing and making.

Evaluating

- Critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests.
- Research key events and individuals relevant to frame structures.

Technical knowledge and understanding

- Know and use technical vocabulary relevant to the project.

product to work automatically in response to changes in the environment.

Evaluating

- Test the system to demonstrate its effectiveness for the intended user and purpose.
- Investigate famous inventors who developed ground-breaking electrical systems and components.

Technical knowledge and understanding

- Apply their understanding of computing to program, monitor and control their products.

and use a range of tools and equipment to make products that that are accurately assembled and well finished. Work within the constraints of time, resources and cost.

Evaluating

- Consider the views of others to improve their work.
- Investigate famous manufacturing and engineering companies relevant to the project.

Technical knowledge and understanding

- Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement.
- Know and use technical vocabulary relevant to the project.