DESIGN TECHNOLOGY SUBJECT VISION AND DRIVERS



**Subject Aims**

At Cathedral Catholic Primary School, we will provide opportunities that will enable learners to:

* develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world;
* build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users;
* critique, evaluate and test their ideas and products and the work of others;
* understand and apply the principles of nutrition and learn how to cook.

These aims are consistent with our school philosophy. Our goal is that all children should achieve the highest standards possible in Design and Technology and benefit from a broad, rich and personalised curriculum that addresses the five key outcomes set out in Every Child Matters. Overall, we strive to provide enjoyable, practical and enriching learning opportunities to all children.

**Subject Vision**

At Cathedral Catholic Primary School we aim for Design & Technology to be an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others’ needs, wants and values. Through the evaluation of past and present design and technology, pupils develop a critical understanding of its impact on daily life and the wider world, which prepares them to engage in tomorrow's rapidly changing technologies. This subject encourages children to become creative problem solvers and thinkers, and to persevere when faced with challenges. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.

Across school, children will learn, develop and build-on a range of skills in-keeping with the National Curriculum. Wherever possible, design and technology will be taught in the context of a topic, making links to other subjects and enabling children to apply learning from other areas. Skills should progress throughout school, practising and building on previously taught skills from year to year. The majority of children should achieve year group expectations with all children making at least expected progress across every term.

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| Community | Possibilities | Spirituality |
| Links will be made with local primary schools and with specialist Design Technology secondary schools to enrich the Design Technology curriculum at The Cathedral Catholic Primary School. | Children will learn about the important role that Design Technology plays in many careers and will be confident in their ambitions. Children will have a good understanding of their abilities in D.T. and be positive about their abilities to achieve, demonstrating self-belief and self-worth. Potential stereotypes regarding gender are challenged with the subject being led and championed by female members of staff. | The children will be encouraged to appreciate the impact Design Technology has on the natural world and the part played by Design Technology in looking after God’s creation. They will be encouraged to see the wonders around them and appreciate God’s design in our world. |
| CURRICULUM OVERVIEW | | | |

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| EYFS | Key Stage One | Key Stage Two |
| Subject specific focus from statutory framework for Early Years Foundation Stage  Providers must support children in the specific area of:  Expressive arts and design  The development of children’s artistic and cultural awareness supports their imagination and creativity. It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to communicate through the arts. The frequency, repetition and depth of their experiences are fundamental to their progress in interpreting and appreciating what they hear, respond to and observe.  Other developmental strands involved with design technology:  Physical development involves providing opportunities for young children to develop their co-ordination, control, and movement. Opportunities are given for using a range of tools to develop fine motor skills through exploring and using media. The ELG for creating with materials (EYFS, 2021) states that:   * 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; * Make use of props and materials when role playing characters in narratives and stories. | Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].  When designing and making, pupils should be taught to:  Design   design purposeful, functional, appealing products for themselves and other users  based on design criteria   generate, develop, model and communicate their ideas through talking, drawing,  templates, mock-ups and, where appropriate, information and communication  technology  Make   select from and use a range of tools and equipment to perform practical tasks [for  example, cutting, shaping, joining and finishing]   select from and use a wide range of materials and components, including construction  materials, textiles and ingredients, according to their characteristics  Evaluate   explore and evaluate a range of existing products   evaluate their ideas and products against design criteria  Technical knowledge   build structures, exploring how they can be made stronger, stiffer and more stable   explore and use mechanisms [for example, levers, sliders, wheels and axles], in their  products.  Cooking and nutrition  As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.  Pupils should be taught to:  Key Stage 1   use the basic principles of a healthy and varied diet to prepare dishes   understand where food comes from. | Key Stage 2  Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].  When designing and making, pupils should be taught to:  Design   use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups   generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design  Make   select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately   select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities  Evaluate   investigate and analyse a range of existing products   evaluate their ideas and products against their own design criteria and consider the views of others to improve their work   understand how key events and individuals in design and technology have helped shape the world  Technical knowledge   apply their understanding of how to strengthen, stiffen and reinforce more complex structures   understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]   understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]   apply their understanding of computing to program, monitor and control their products.  Cooking and nutrition  As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.  Pupils should be taught to:  Key Stage 2   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. |
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**Reception**

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| Autumn 1  Marvellous Me | Autumn 2  Superheroes | Spring 1  Animals | Spring 2  Journeys and Transport | Summer 1  Fairy tales | Summer 2  Growing |
| ELG requirements:   * 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; * Make use of props and materials when role playing characters in narratives and stories. | | | | | |

Yearly Overview – Year 1 and Year 2

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|  | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Year 1 | Family album | Fire! Fire! | Penguins, Possums and Pigs | Growth & Green Fingers | The Great Outdoors | Robots |
|  |  | Mechanisms – pop ups and simple card levers  Products are to be made to appeal to themselves and other users.  Tools and equipment to be selected appropriately for each product in order to perform linked practical tasks such as cutting, shaping, joining and finishing. Discuss their work as it progresses.  Talk about their design as they develop and identify good and bad points   * Can I fold, tear and cut paper and card? * Can I cut along lines, straight and curved? * Can I use a hole punch? * Can I insert paper fasteners for card? * Can I experiment with levers and sliders to find different ways of making things move in a 2D plane? * Explore and use sliders and levers. * Understand that different mechanisms produce different types of movement. | Structures – stability and strength  Design a functional bird box communicating their ideas, based on existing products through talk and the use of a booklet to illustrate these design ideas and final designs. Use kits/reclaimed materials to develop more than one idea. Explore ideas by rearranging materials. These ideas are to be made by selecting appropriate tools for cutting, shaping joining and finishing their product. Describe what they need to do next. The finished product will be evaluated against design criteria. Decide how existing products do/do not achieve their purpose   * Can I explore how to make structures stronger? * Can I investigate different techniques for stiffening a variety of materials? * Can I test different methods of enabling structures to remain stable? * Can I join appropriately for different materials and situations e.g. glue, tape? * Can I mark out materials to be cut using a template.   Can I use a glue gun with close supervision?  • Know how to make freestanding structures stronger, stiffer and more stable. | Food – preparing and combining foods  Investigate where food comes from by sorting a range of products into plant based foods and animal based foods as well as what is healthy and what is a treat. Design a healthy pizza that appeals to their own tastes by trying different pizza toppings and creating a food vocabulary linked to these foods. Name the tools they are using. Pizzas to be tasted to and children to say what they, like or do not like about it and attempt to say why.   * Can I develop food vocabulary using taste, smell, texture and feel? * Can I group familiar food products e.g. fruit and vegetables as well as what is healthy and what is a treat? * Can I explain where food comes from? * Can I safely and hygienically? * Do I understand the need for a variety of foods in a diet? |  |  |
| Key Vocabulary |  | Mechanism, lever, slider, slot, pivot, fastener, hole punch, plane, cut, | Cut, join, fix, weak, strong, glue gun | Names of different vegetables and meats, dough, knead, sensory vocabulary (soft, sticky, sweet etc), slicing, ingredients |  |  |

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|  | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 | |
| Year 2 | Explorers | Island Life | Fantasy Worlds | An African Safari | The Three Littles Wolves and the Big Bad Pig | The Victorian Seaside | |
|  | Mechanisms – wheels and axels  Design a moving vehicle for a specific existing character ( fictional or real), communicating ideas through the use of information and communication technology on Purple Mash software. Select appropriate technique explaining: first, next, last. Propose more than one idea for a product  Make the vehicles by selecting appropriate tools to cut, shape and join materials. Explain what they are making. Explore the use of mechanisms by creating an axle which allows the vehicle to move. Evaluate the vehicle against design criteria and quality of product outcome. Explore existing products and how they are made.   * Can I join appropriately for different materials and situations e.g. glue, tape? * Can I try out different axle fixings and their strengths and weaknesses? * Can I make vehicles with construction kits which contain free running wheels? * Can I use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels? * Can I roll paper to create tubes? * Can I cut dowel using hacksaw and bench hook? * Can I attach wheels to a chassis using an axle?   Can I mark out materials to be cut using a template? |  | Food – the eat-well plate, where food comes from, principles of a healthy diet  Design a traditional biscuit that appeals to their own tastes after trying different existing biscuits ( for grandparents afternoon tea) Add notes to drawings to help explanations  Make biscuits selecting appropriate tools.  Biscuits to be made and tasted to evaluate against design ideas and criteria.   * Can I cut, peel, grate, chop a range of ingredients? * Can I measure and weigh food items, non-statutory measures e.g. spoons, cups? * Can I work safely and hygienically? * Can I select and name the tools needed to work the materials? * Can I make a food product selecting appropriate tools? * Can I evaluate against design ideas and criteria? |  | Textiles – using a template, simple joining, choice of stitches, choice of materials  Design a functional puppet with moving parts with links to Wind in the Willows in the design brief, communicating their ideas, based on existing products through talk and the use of a booklet to illustrate these design ideas and final designs. These ideas are to be made by selecting appropriate tools for cutting, shaping joining and finishing their product. Explain which materials they are using and why. Research and experiments to take place throughout the process to examine how to make the puppet stronger/stiffer. The finished product will be evaluated against design criteria. Note changes made during the making progress as annotation to plans/ drawings   * Can I cut out shapes which have been created by drawing round a template onto the fabric? * Can I join fabrics by using e.g. running stitch, glue, staples, over sewing, tape? * Can I decorate fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons? * Can I colour fabrics using a range of techniques e.g. fabric paints, printing, painting? * 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. * Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons. |  | |
| Enrichment |  |  | Grandparents afternoon tea. |  |  |  | |
| Key Vocabulary | Axel, chassis, dowel, hacksaw, fixings |  | Arranging, slicing, peeling, names of different vegetables, flesh, crisp |  | Template, dye, over stitch, needle, seam, fabric |  | |
| KEY LEARNING IN DT – YEARS 3 & 4 | | | | | | | |

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| Design | Make | Evaluate |
| * Develop more than one design or adaptation of an initial design. * Plan a sequence of actions to make a product. * Record the plan by drawing using annotated sketches. * Begin to use cross-sectional and exploded diagrams. * Use prototypes to develop and share ideas. * Think ahead about the order of their work and decide upon tools and materials. * Propose realistic suggestions as to how they can achieve their design ideas. * Consider aesthetic qualities of materials chosen. * Use CAD where appropriate. | * Prepare pattern pieces as templates for their design. * Cut slots. * Cut internal shapes. * Select from a range of tools for cutting shaping joining and finishing. * Use tools with accuracy. * Select from techniques for different parts of the process. * Select from materials according to their functional properties. * Plan the stages of the making process. * Use appropriate finishing techniques. | * Investigate similar products to the one to be made to give starting points for a design. * Draw/sketch products to help analyse and understand how products are made. * Research needs of user. * Identify the strengths and weaknesses of their design ideas in relation to purpose/user. * Decide which design idea to develop. * Consider and explain how the finished product could be improved. * Discuss how well the finished product meets the design criteria of the user. * Investigate key events and individuals in Design and Technology. |

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|  | Autumn 1 | | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Year 3 | There’s No Place Like Home | | Light and Dark | Stones and Bones | Mighty Metals | Healthy Humans | How Does Your Garden Grow? |
|  |  | | **Structures – shell/frame structures and strengthening**  Design a model building based on our Lancaster Lowry theme analysing existing products. Illustrate research and design process in a booklet including annotated sketches to explain ideas.  Make the product by selecting from a wide range of tools to perform practical tasks such as cutting, shaping, joining and finishing.  Select from a range of materials according to their functional properties and aesthetic qualities. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.  Evaluate their ideas and products throughout the process and make adjustments and improvements as necessary considering the views of others to improve their work.   * Can I develop vocabulary related to the project?   Can I create shell or frame structures?   * Can I strengthen frames with diagonal struts? * Can I make structures more stable by giving them a wide base?   • Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes |  | Mechanical systems – levers and linkages  Evaluate existing products researching the needs of the user and build upon previous learning to design a pop up toy/person with at least 2 moving parts that is fit for purpose to be used by a consumer or group of consumers. Designs to be generated through discussion and illustrated through a booklet that includes annotated sketches. Draw products to help analyse and understand how products are made.  Make a pop up toy/person selecting from a wide range of tools to perform practical tasks such as cutting, shaping, joining and finishing.  Select materials according to their functional properties and aesthetic qualities.  Cut slots and internal shapes.  Evaluate their ideas and product against their own design criteria and consider the views of others to improve their work in the future.  Can I use mechanical systems such as gears, pulleys, levers and linkages?   * Can I use lolly sticks/card to make levers and linkages?   Can I use linkages to make movement larger or more varied?  • Understand and use pneumatic mechanisms | Food – simple dish – the eatwell plate  Research and design a healthy savoury dish.  Plan the stages of the making progress  Make the dish using a range of cooking techniques.  Evaluate the dish paying attention to taste and how healthy it is and other design criteria.  Can I develop sensory vocabulary/knowledge using, smell, taste, texture and feel?   * Can I analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury)? * Can I follow instructions/recipes? * Can I make healthy eating choices – use the *Eatwell plate?* * Can I join and combine a range of ingredients? * Know how to use appropriate equipment and utensils to prepare and combine food. * Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. |  |
| Enrichment | |  |  |  |  | Having a healthy buffet to celebrate the food designed and created by the children |  |
| Key Vocabulary | |  | Assemble, net, stiff, adhesives, marking out, scoring |  | Loose pivot, fixed pivot, system, input, process | Texture, appearance, preference, moist, fresh, savoury, edible |  |

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|  | Autumn | Spring | Summer |
| Year 4 | Invaders | Sparks Might Fly | Water, Water Everywhere |
|  | **Food – simple savoury food and cooking techniques**  Research, investigate and analyse a range of existing products to design original \_\_\_\_\_\_\_\_\_\_\_\_to appeal to a parent consumer.  Think head about the order of their work and decide upon tools and materials planning a sequence of actions to make a product.  Select from a wider range of ingredients to make with the consumer in mind.  Understand the seasonality of the ingredients and research where they come from and how they are grown or processed.  Evaluate the dish paying attention to the view of the parent consumer in order to improve future work.   * Can I analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury)? * Can I follow instructions/recipes? * Can I explore seasonality of vegetables and fruit? * Can I find out which fruit and vegetables are grown in countries/continents studied in Geography?   Can I develop my understanding of how meat/fish are reared/caught?  • Know how to use appropriate equipment and utensils to prepare and combine food.  • Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. | **ICT and electrical systems – control and electrical components**  Design an electrical game for a child of Year 4 age.  understand and use electrical systems in their products  use research to develop more than one design or adaptation and decide which ideas to develop using 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. Use prototypes to develop and share ideas.  select from and use a wider range of materials and components, including construction materials   * Can I develop vocabulary related to the project? * Can I incorporate a circuit into a model? * Can I use electrical systems such as switches bulbs and buzzers?   Can I use ICT to control products?  • Understand and use computing to program and control products containing electrical systems, such as series circuits incorporating switches, bulbs and buzzers | **Textiles – seams, stiffening and strengthening, materials and fastenings**  Design a product to provide a place to keep money in for travel/ important documents by researching and analysing existing products. Illustrate research and design process in a booklet including annotated sketches to explain ideas. Consider aesthetic qualities of materials chosen  Make the product by selecting from a wide range of tools to perform practical tasks such as cutting, shaping, joining and finishing.  Select from a range of materials according to their functional properties and aesthetic qualities. Prepare pattern pieces as templates for their design Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.  Evaluate their ideas and products throughout the process and make adjustments and improvements as necessary considering the views of others to improve their work.   * Can I use the vocabulary for tools materials and their properties? * Can I understand seam allowance? * Can I join fabrics using running stitch, over sewing, blanket stitch? * Can I use a textile product I have taken apart to create a paper pattern using 2-D shapes? * Can I use prototype to make pattern? * Can I explore strengthening and stiffening of fabrics? * Can I explore fastenings (inventors?) and recreate some? * Understand how to securely join two pieces of fabric together. * Understand the need for patterns and seam allowances. Know and use technical vocabulary relevant to the project. * Know how to strengthen, stiffen and reinforce existing fabrics. |
| Enrichment |  |  |  |
| Key Vocabulary | Grown, reared, caught, frozen, tinned, processed, seasonal, harvested, boil, fried | Circuit, input device, output device, connection, crocodile clip, battery holder, system | Back/blanket/cross stitch, pinning, fastening, compartment, function, seam allowance |

**Yearly Overview – Year 5 and Year 6**

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|  | **Autumn** | **Spring** | **Summer** |
| **Year 5** | **A Kingdom United** | **Inventors & Inventions** | **Ancient and Amazing Americas** |
|  | 3D Textiles –using patterns, joining with seam allowance, combining fabrics  Design a bag that an explorer could take in the jungle   use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups   generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design  Make   select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately   select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities  Produce a detailed list of materials and tools that are needed.  Evaluate   investigate and analyse a range of existing products   evaluate their ideas and products against their own design criteria and consider the views of others to improve their work   * Can I create 3D products using patterns pieces and seam allowance? * Can I pin and tack fabric pieces together? * Can I join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision)? * Can I Combine fabrics to create more useful properties? | Mechanical systems – cams, pulleys and gears  Design a toy product that uses cams for a user. Illustrate the research and design process in a booklet or mood boards including annotated sketches, cross-sectional diagrams and exploded diagrams to explain ideas after analysing and critiquing existing products.  Make the product by selecting from a wide range of tools to perform practical tasks such as cutting, shaping, joining and finishing.  Select from a wide range of materials and components, including construction materials and textiles according to their functional properties and aesthetic qualities.  Evaluate their ideas and products throughout the process and make adjustments and improvements as necessary considering the views of others to improve their work. Give a report using technical vocabulary.   * Can I stiffen and reinforce complex structures? * Can I use mechanical systems such as cams, pulleys and gears? * Can I develop a technical vocabulary appropriate to the project? * Can I use electrical systems such as motors? * Understand how cams can be used to produce different types of movement and change the direction of movement. * Understand that mechanical systems have an input, process and an output. | Food – food from another culture, variety of cooking techniques  Research, investigate and analyse a range of existing products to design savoury festival dishes that are appealing to parent consumers, listing the tools that are needed before starting the activity. Understand the seasonality of the ingredients and research where they come from and how they are caught, reared, grown or processed. Communicate alternative ideas but develop one idea in depth.  Prepare the dishes selecting appropriate tools to complete practical tasks and producing a detailed list of ingredients.  Evaluate their ideas and products throughout the process and make adjustments and improvements as necessary considering the views of others to improve their work.   * Can I prepare food products taking into account the properties of ingredients and sensory characteristics? * Can I weigh and measure using scales? * Can I work safely and hygienically? * Can I use a range of cooking techniques? * Do I know where and how ingredients are grown and processed? * Know how to use utensils and equipment including heat sources to prepare and cook food. * Understand about seasonality in relation to food products and the source of different food products. |
| **Enrichment** |  |  |  |
| **Key Vocabulary** | Tacking, hem, stem/ satin stitch, pinking shears | CAMS, pulley, gear, cross section, exploded diagram, aesthetic | New ingredients, gluten |

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|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Year 6** | **Survival and the 2004 Boxing Day Tsunami** | | **History Detectives and the Ancient Egyptians** | | **Frances Elizabeth Johnson and the Lancaster Slave Trade** | |
|  |  | Food – chefs, food heroes, designing a healthy menu/eatwell plate  Research, investigate and analyse a range of historical and existing products to design a sweet dish that is suitable for a Christmas feast that are appealing to parent consumers. Understand the seasonality of the ingredients and research where they come from and how they are caught, reared, grown or processed.  Prepare the dishes selecting appropriate tools to complete practical tasks.  Evaluate their ideas and products throughout the process and make adjustments and improvements as necessary considering the views of others to improve their work. Think about a key figure and how they have influenced   * Can I draw on and use various sources of information? * Can I clarify my ideas through discussion and drawing? * Can I use my understanding of the characteristics of familiar products when developing and communicating my own original ideas? * Can I develop food products for a range of particular purposes? * Can I describe clearly the choices I have made, in relation to a healthy and balanced diet, in developing and preparing foods? * Can I evaluate my use of information sources? * Can I evaluate my final product and communicate my conclusions? * Can I prepare food products taking into account the properties of ingredients and sensory characteristics? * Can I weigh and measure using scales? * Can I work safely and hygienically? * Can I use a range of cooking techniques? * Do I know where and how ingredients are grown and processed? * Can I consider the influence of chefs? * Know how to use utensils and equipment including heat sources to prepare and cook food. * Understand about seasonality in relation to food products and the source of different food products. | Cross stitch samplers  Design   use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups   generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design  Make   select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately   select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities   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   * Can I use the correct vocabulary appropriate to the project? * Can I understand pattern layout? * Can I decorate textiles appropriately? * Can I make quality products? * A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics. * Fabrics can be strengthened, stiffened * A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics. | | Combining learning from across design and technology skills bases – structures, mechanical systems, electrical systems, ICT programming and control  Research and design an open ended, functioning, fit for purpose product to solve a real life problem based around the sea side/fairground.  Illustrate the research and design process in a booklet or mood boards including annotated sketches, cross-sectional diagrams and exploded diagrams to explain ideas after analysing and critiquing existing products.  Use, models, kits and drawings to help formulate design ideas. Make the product, after making a prototype, by selecting from a wide range of tools to perform practical tasks such as cutting, shaping, joining and finishing.  Select from a wide range of materials and components, including construction materials and textiles according to their functional properties and aesthetic qualities. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.  Evaluate their ideas and products throughout the process and make adjustments and improvements as necessary considering the views of others to improve their work. Products to show understanding and use of electrical systems [for example, series circuits incorporating switches, bulbs, buzzers and motors]  apply their understanding of computing to program, monitor and control their products.   * Can I draw on and use various sources of information? * Can I clarify my ideas through discussion, drawing and modelling? * Can I use my understanding of the characteristics of familiar products when developing and communicating my own original ideas? * Can I work from my own detailed plans, modifying them where appropriate? * Can work with a range of tools, materials, equipment, components and processes with precision? * Can I check my work as it develops and modify my approach in the light of progress? * Can I use electrical systems such as motors?   Can I programme, monitor and control using ICT? | |
| **Enrichment** |  | Christmas feast for each user. |  |  |  | |
| **Key Vocabulary** |  | New ingredients, carbohydrates, sugar, fat, protein, vitamins, nutrients |  |  |  | |