'Design Technology' at St Mary's Catholic Primary

	AUTUMN	SPRING	SUMMER
NURSERY	Ourselves and Our Family: Festivals and Christmas:	Winter Wonderland: Traditional Tales:	Growing: Minibeasts: Animals and Journeys:
	Designing, Making and Evaluating Introduce the children to the creative/workshop areas of the classroom. To begin to develop confidence in working with a range of tools and equipment. **Block Play** To begin to develop independence in working with different construction materials To build a tower with blocks To begin to understand safety rules (an awareness that building a very tall tower will tumble and hurt someone) To be introduced to vocabulary associated with construction. **Language to be introduced** Construction, balance, more, lots, hard, secure, wobble, connect, smooth, hard. **Food** To begin to develop a food vocabulary using taste, smell, texture and feel. To talk about basic food hygiene – Washing hands before eating snack. Start to pour milk from a jug. To begin to know where our food comes from – Read Oliver's vegetables and talk about how certain food is grown from a tiny seed in the ground, Plant carrots, potatoes and herbs. Read the Enormous Turnip and Look at pumpkins – Make Pumpkin soup with the children Children start to learn about what food is good for us.	**Designing, Making and Evaluating** Describe simple models or drawings of ideas and intentions. Discuss their work as it progresses. To look at the skill of joining – to provide glue and a range of materials with a large flat surface to make joining easier To learn about the different ways in which materials can be joined. To select and name the tools needed to work the materials e.g. scissors for paper To learn how to cut using a pair of scissors. **Block Play** Once the children consolidate their knowledge of blocking and stacking they will begin to consolidate the two with bridging. To enable them to bridge the children will use two blocks to support. **Language to be used** Edge, measure, steady heavy, fasten, fix, smooth, area, level. **Food** To measure and weigh food items, non statutory measures e.g. spoons, cups. Stir, spread, knead and shape a range of food and ingredients, when making bread, pancakes, porridge, cakes, soup, biscuits.	**Designing, Making and Evaluating** To begin to create their design using basic techniques. To start to build structures, joining components together. To say what they like and do not like about items they have made and attempt to say why. To begin to talk about their designs as they develop and identify good and bad points. To review their work and then revisit it to make changes. **Block Play** Once children mastered the art of bridging then use their bridging techniques to create an enclosed space. To begin to develop 3D structures. **Language to be introduced** Horizontal, Vertical, Slop, Stable, Structure. **Food** To start to think about the need for a variety of foods in a diet. Read Oliver's fruit salad – Make smoothies – fruit kebabs start to learn how to use a knife to cut fruit.
RECEPTION	**Fairy tales and Traditional Stories: Me and My Family:**	**Healthy Eating: Chinese New Year: People Who Help Us: Lent and Easter:**	**Minibeasts: Life Cycles: Growth: Jack and the Beanstalk: Water: Flowers:**

	Winter:		
	Designing, Making and Evaluating Explain what they are making and which materials they are using. Select materials from a limited range that will meet a simple design criteria e.g. shiny. Select and name the tools needed to work the materials e.g. scissors for paper. To refine scissor skills to make cuts in paper. To use adhesives to join material. **Block play and Deconstructed Role play** To start to develop complex structures as their knowledge, experience and confidence progress. To become more imaginative in their block play constructions. To begin to create more elaborate and complex designs. To start to use blocks to represent things that they know (structures could be a house or a train station it could also be a castle or a dragon's lair) **Food** To start to measure and weigh food items, statutory measures e.g. ml, l, oz and grams. To use a range of cooking utensils in cooking in order to teach the children how to stir, spread, knead and shape their ingredients. To start to be aware of basic hygiene when handling food. To make bread for Harvest – look at how ingredients change and what happens to the bread when yeast is added.	**Designing, Making and Evaluating** To talk about their designs in more detail. To start to work with tools, equipment, materials and components to make quality products To look at simple hinges, wheels and axles. To use technical vocabulary when appropriate. To begin to use scissors to cut straight and curved edges and hole pinches to punch holes. To explore using/ holding basic tools such as a saw or hammer. To join using tape, elastic bands folding techniques, paper clips. **Block play and Deconstructed Role play** To start to develop complex structures as their knowledge, experience and confidence progress. To become more imaginative in their block play constructions using stories and role play as a stimulus for their designs. Can the children build something to support their role play? To begin to create more elaborate and complex designs. **Food** To think about the need for a variety of foods in a diet. To start to learn about which food groups we need. To introduce the idea of healthy foods and unhealthy food and the importance of eating a balanced diet.	**Designing, Making and Evaluating** To extend their ideas and logical thinking To embellish their designs and creations. To start to talk about changes made during the making process. To discuss how closely their finished products meet their design **Children will now be able to achieve the ELG –** **To explore colour, shape, texture, form and space in 2D,** **To express and communicate ideas thoughts and feeling by using a wide range of materials and suitable tools.** **Use imagination in art and design.** **Respond in a variety of ways to what they see, touch, feel and hear.**
Y1 Topic	**Ourselves (Den Building, Making houses)**	**Aliens are coming (Making vehicles)**	**Water world (Pizza)**
YEAR 1	**Design** Begin to develop their ideas through talk and drawings. Make templates and mock ups of their ideas in card and paper. Use simple design criteria to help develop their ideas when planning a model of a house. To generate their ideas by drawing on their own experiences – Talk about different style of house. How many rooms are there? Look at pictures of interiors talk about why materials are used for different purposes.	**Design** To use their knowledge of existing products to help come up with ideas – look at a range of different wheeled vehicles and talk about how they move. To model their ideas by exploring materials and construction kits to create their own vehicles, following a set of instructions. **Making** Planning – Select from a range of tools and equipment. Can the children explain their choices? Practical – Assemble, join and combine materials and components.	To create pizzas To use kitchen utensils to prepare food. To use a knife to chop soft food safely using the bridge and claw grip with close supervision. To learn how to use a grater to grate cheese for a pizza. To learn about the basic hygiene of preparing food and be supervised getting ready. To know about the Eatwell plate and how we should aim to eat four or five fruit and vegetables a day.

	To model ideas by exploring materials, components and construction kits – Testing out the durability of different materials. Introduce different elements, water, weights. How can we make our product stronger? Create a den with logs and den building equipment how can we make it waterproof? To say how they will make their product suitable for their intended users. Which materials will they use for their design and why? **Make** Select from a range of materials and components according to their characteristics. Assemble, join and combine materials and components. **Evaluate** To talk about their designs. To suggest how their products could be improved **Technical Knowledge** To know how freestanding structure can be made stronger stiffer and more stable.	**Evaluate** How their vehicle is used and how it works? Whom is the vehicle for? What they like and dislike about their vehicle? **Technical knowledge** Can children talk about the simple working characteristics of materials and components? Can children talk about the mechanisms of wheels and axles. **Key skills –To start to use tools to perform practical tasks i.e. cutting joining and finishing exploring a wide range of materials, construction and textiles. Joining techniques hole punch, split pins treasury tags, threading resources glue gun**	
Y2 Topic	**Explorers (Scratch, Making puppets)**	**Fruits, shoots and juicy fruits: (Healthy Salad)**	**The Big Smoke (Make a mechanical stage set to include moving fire with axles/pulleys one moving piece)**
Year 2	**Food and Technology** To know that all food comes from plants or animals. To know that food has to be farmed or grown elsewhere. **Design** Begin to develop their design ideas through discussion, observation, drawing and modelling. Identify a purpose for what they intend to design and make. **Make** To begin to select tools and materials; use correct vocabulary to name and describe them. To build structures, exploring how they can be made stronger, stiffer and more stable. To join materials together as part of a moving structure. (scratch) **Evaluate** Evaluate their ideas and products against design criteria.	**Food and Technology** To name and sort foods into the five groups in the Eatwell plate. To know that everyone should eat at least five portions of fruit and vegetables every day. With supervision get ready to cook To prepare simple dish safely and hygienically using a heat source To use measuring spoons for liquids, solids and dry ingredients To use techniques such as cutting, peeling and grating of softer foods to make a healthy fruit salad. To design and make a healthy salad.	**Design** To design purposeful, functional, appealing products based on design criteria. Identify a purpose for what they intend to design and make. To Understand how to identify a target group for what they intend to design and make based on a design criteria. To know about the movement of simple mechanisms such as levers, sliders when evaluating a moving scene from the fire of London. **Make** With help measure, cut and score with some accuracy. Learn to use hand tools safely and appropriately. Start to assemble, join and combine materials in order to make a product. Demonstrate how to cut, shape and join fabric to make a simple product. Use basic sewing techniques. Start to choose and use appropriate finishing techniques based on own ideas. **Evaluate** Evaluate their work against their design criteria.

			Look at a range of existing products explain what they like and dislike about Products and why. **Key skills** **To explore and use mechanisms in their products i.e. levers sliders wheels and axles.** **To use ICT in their designs** **To be confident when using more utensils when preparing and cooking food.**
	Rainforests: Healthy, varied diet recipes	**Stone Age to the Iron Age: Sewing**	**Ancient Egypt: Make a shaduf**
YEAR 3	Understand and apply the principles of a healthy and varied diet using portion size. Know where and how a variety of ingredients are grown. Link to the rainforest and food found. Know how to get ready to cook. Know and can follow basic food safety rules. Begin to use a jug to measure liquids and digital weighing scales. Prepare and cook a recipe that involves kneading, rolling, using the claw grip/bridge hold to cut evenly sized strips or cubes and peel/grate harder food.	Designing: With growing confidence generate ideas for an item, considering its purpose and the user/s. Know to make drawings with labels when designing. Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products. Identify a purpose and establish criteria for a successful product. When planning, explain their choice of materials and components including function and aesthetics. Making: Explain their choice of tools and equipment in relation to the skills and techniques they will be using. ***Start to understand that mechanical systems such as levers and linkages have an input, process and output which create movement.*** Measure, mark out, cut, score and assemble components with more accuracy. Start to work safely and accurately with a range of tools. Start to think about their ideas as they progress and be willing to change things. ***Start to measure, tape or pin, cut and join fabric with some accuracy***. Evaluate: Start to evaluate their product against original design criteria e.g. how well it meets its intended purpose. Start to identify strengths and areas for development. Begin to disassemble and evaluate familiar products and consider the views of others to improve them. Evaluate the key designs of individuals in design and technology has helped shape the world.	
	Celts and Romans: Sewing a purse	**Inventors: Using electrical systems for a circuit**	**Greeks: Savoury Greek foods**
YEAR 4	Designing: Start to generate ideas, considering the purposes for which they are designing, and consider the views of the user to improve their ideas. Confidently make labelled drawings from different views showing specific features. Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products. Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods, if the first attempts fail. When planning, explain their choice of materials and components including function and aesthetics. Making: Select a wider range of tools and techniques for making their product safely. Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. Start to join and combine materials and components accurately in temporary and permanent ways. ***Understand how more complex electrical circuits and components can be used to create functional products.***		Understand and apply the principles of a healthy and varied diet. Understand seasonality. Know how to get ready to cook. Know and can follow basic food safety rules. Begin to use a jug to measure liquids and digital weighing scales. Prepare and cook a savoury recipe that involves kneading, rolling, using the claw grip/bridge hold to cut evenly sized strips or cubes and peel/grate harder food.

	Understand how to reinforce and strengthen a 3D framework. ***Now sew using a range of different stitches to weave and knit.*** ***Demonstrate how to measure, tape or pin, cut and join fabric with some accuracy.*** Evaluate: Evaluate their products carrying our appropriate tests. Start to evaluate their work both during and at the end of the assignment. Identify strengths and areas for development. Be able to disassemble and evaluate familiar products and consider the views of others to improve them. Evaluate the key designs of individuals in design and technology has helped shape the world.		
	Invasions: Savoury Viking/Saxon foods	**The Final Frontier: Using mechanical systems for a buggy**	**Mighty Medway: Making bridges**
YEAR 5	Understand and apply the principles of a healthy and varied diet. Know where and how ingredients are reared and caught. Children independently get ready to cook by tying back hair, wash hands etc. Know, and can follow, food safety rules and understand their purpose. Accurately use a jug to measure liquids and accurately use weighing scales. Prepare and cook a savoury recipe that involves confidently using the bridge, claw harder foods with a serrated vegetable knife, finely grate hard foods, use a can opener and open ring-pull times. With help and supervision, begin to use the hob or electric saucepan.	Designing: Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams. Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. With growing confidence, select appropriate materials, tools and techniques. Making: Select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately. ***Understand how mechanical systems such as cams or pulleys or gears have an input, process and output, which creates movement.*** Begin to measure and mark out more accurately. With growing confidence cut and join with accuracy to ensure a good-quality finish to the product. Evaluate: Start to evaluate a product against the original design specification and by carrying out tests. Evaluate their work both during and at the end of the assignment. Begin to evaluate it personally and seek evaluation from others. Evaluate the key designs of individuals in design and technology has helped shape the world.	
	Mayans/ WW1:	**All systems Go: Computer programming**	**Change: Cooking Life Skills**
YEAR 6	Designing: Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and CAD. Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. Plan the order of work, choosing appropriate materials, tools and techniques. Suggest alternative methods of making if the first attempts fail. Making: Confidently select appropriate tools, materials, components and techniques and use them. Use tools safely and accurately. Aim to make and to achieve a quality product. Demonstrate when to make modifications as they go along. Construct products using permanent joining techniques. ***Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to monitor changes in the environment and control their products.*** ***Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.*** Evaluate:		Know where and how ingredients are reared, caught and processed. Understand and apply the principles of a healthy and varied diet. Children independently get ready to cook by tying back hair, wash hands etc. Know, and can follow, food safety rules and understand their purpose. Prepare and cook a sweet or savoury recipe that revises the skills of confidently using the bridge, claw harder foods with a serrated vegetable knife, finely grate hard foods, use a can opener and open ring-pull times. With help and supervision, begin to use the hob or electric saucepan.

	Evaluate their products, identifying strengths and areas for development, and carrying out appropriate test. Evaluate their work both during and at the end of the assignment. Record their evaluations using drawings with labels. Evaluate against their original criteria and suggest ways that their product could be improved. Evaluate the key designs of individuals in design and technology has helped shape the world.	