Marriott Primary School

Design Technology Curriculum

	Design	Make	Evaluate	Technical knowledge	Cooking and Nutrition	Key Knowledge and Vocabulary
FS	**To use one-handed tools and equipment, e.g. makes snips in paper with child scissors.** **To understand that equipment and tools have to be used safely.** **To show an interest in technological toys with knobs or pulleys, or real objects.** **To show skill in making toys work by pressing parts or lifting flaps to achieve effects, such as sound, movements or new images.** **To capture experiences and responses with a range of media, such as music, dance and paint and other materials or words.** **To use simple tools to effect changes to materials.** **To handle tools, objects, construction and malleable materials safely and with increasing control.** **To show understanding of the need for safety when tackling new challenges and consider and manage some risks.** **To show understanding of how to transport and store equipment safely.** **To practise some appropriate safety measures without direct supervision.** **To explore what happens when they mix colours.** **To experiment to create different textures.** **To understand that different media can be combined to create new effects.** **To manipulate materials to achieve a planned effect.** **To construct with a purpose in mind, using a variety of resources.** **To use simple tools and techniques competently and appropriately.** **To select appropriate resources and adapt work where necessary.** **To select tools and techniques needed to shape, assemble and join materials they are using.** **To create simple representations of events, people and objects.** **To choose particular colours to use for a purpose**					
Year 1	**Use existing knowledge to generate their own original designs** **Generate, develop, model and communicate their**	**Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].**	**Suggest who their product could be used by and how they could be improved.**	**Select and use technology for a particular purpose.** **Explore and use mechanisms [for example, levers and sliders]**	Prepare dishes using simple techniques such as cutting, mixing, grating and stirring.	To know 4-6 pieces of knowledge/concepts and 2 words at the end of each unit.

	ideas through talking and drawing.	**Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.**		**Explore how structures can be made stronger, stiffer and more stable.** **Understand how to use a safety pin to join two pieces of fabric together.**	**To give example of fruits and vegetables and to know we should eat 5 a day.**	
Year 2	**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 and use their own template.** **Assemble, join and combine materials.** **Select from and use a range of tools, materials and equipment to perform practical tasks explaining their choices.**	**Explore and evaluate a range of existing products.** **Evaluate their ideas and products against design criteria.**	**Build structures, exploring how they can be made stronger, stiffer and more stable.** **Use a running stitch.** **Explore and use mechanisms [wheels and axles] in their products.**	Name and sort foods into the 5 groups of the eat well plate. Use appropriate equipment to weigh and measure ingredients. Prepare simple dishes safely and hygienically, without using a heat source.	To know 4-6 pieces of knowledge/concepts 4 words at the end of each unit.
Year 3	**Gather information about the needs and wants of particular individuals and groups.**	**Select from and use a wider range of materials and components, including construction materials, textiles and ingredients according to their functional**	**Consider the views of others , including intended users, to improve their work.**	**Know how to make strong and stable structures.**	Know how to prepare and cook a variety of savoury dishes safely and hygienically including, where	To know around 6 pieces of knowledge/concepts and around 6 words at the end of each unit.

	Develop their own design criteria and use these to inform their ideas. **Use simple fixing materials e.g. temporary- paper clips/tape and permanent- glue, staples.** **Generate, model and communicate their ideas through discussion, annotated sketches and exploded diagrams.**	**properties and aesthetic qualities.** **Measure, mark out, cut out and shape materials and components.** **Assemble, join and combine materials and components.**	**Identify the strengths and weaknesses of their ideas and products.**	**Understand and use mechanical systems in their products [linkages]** **Electrical systems-**	appropriate, the use of a heat source. Know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and wider world. Begin to understand that seasons may affect the food available.	
Year 4	**Research designs to generate their own design criteria and use these to inform their ideas.** **Generate, model and communicate their ideas through discussion and annotated sketches and prototypes.** **Understand how key events and individuals**	**Select tools and equipment suitable for the task.** **Explain their choice of tools and equipment in relation to the skills and techniques they will be using.** **Measure, mark out, cut and shape materials and components with some accuracy.**	**Investigate how well products have been designed, how well products have been made, why materials have been chosen, what methods of construction have been used, how well products work, how well products achieve their purpose and how well the product meet user needs and wants.** **Understand how key events in design and**	**Understand how simple electrical circuits and components can be used to create functional products.** **Understand the benefits and disadvantages of different types of fastenings.**	Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Measure and weigh ingredients appropriately.	To know around 8 pieces of knowledge/concepts and around 8 words at the end of each unit.

	in design and technology have helped the world today.		**technology have helped shape the world.**	**Begin to understand how to strengthen, stiffen and reinforce structures.**		
Year 5	**Develop design criteria to inform the design of innovative, functional, appealing products.** **Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.**	**Use a wider range of materials and components, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components.** **Assemble, join and combine materials and components with accuracy.** **Apply a range of finishing techniques, including those from art and design, with some accuracy.**	**Investigate- who designed and made the products, where products were designed and made, when products were designed and made and whether products can be recycled or reused.** **Identify great designers and their work and use research of designers to influence work.** **Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make.**	**Understand how to create strong and secure stitches (blanket, running and cross stitch)** **Identify points of weakness and strengthen where necessary.** **To understand that mechanisms can be used to change one type of motion to another.**	Know that to be active and healthy, food is needed to provide energy for the body. Describe the 'farm to fork' process. Prepare and cook a range of predominately savoury dishes using a range of cooking techniques. Evaluate a meal and consider if they contribute towards a balanced diet.	To know around 10 pieces of knowledge/concepts and around 10 words at the end of each unit.
Year 6	**Identify the needs, wants, preferences and values of particular individuals and groups.**	**Accurately measure to nearest mm, mark out, cut and shape materials and components.** **Accurately apply a range of finishing techniques,**	**Investigate- how much products cost to make, how innovative products are and how sustainable the materials in the products are.**	**Apply their understanding of how to strengthen, stiffen and reinforce more complex structures and identify what makes**	Understand the need for correct storage. Measure accurately. Work out ratios in recipes.	To know 12 pieces of knowledge/concepts 12 words at the end of each unit.

	Make design decisions, taking account of constraints such as time, resources and cost. Develop prototypes. **Design using four different perspective drawings**	**including those from art and design.** **Use techniques that involve a number of steps.** **Demonstrate resourcefulness e.g. make refinements.**	**Compare their ideas and products to their original design specification. Test their own and others' finished produces, identifying what went well and making suggestions for improvements.**	**a successful structure.** **Understand and use mechanical systems in their products [cams]** **To be able to combine wool fibres to make a fabric.**	Know that different foods contain different substances- nutrients, water and fibre- that are needed for health. Plan a healthy and affordable diet.	